SAMSUNG

**LTN1785W**
**LT-P1795W**

**TFT-LCD TELEVISION**

SAMSUNG
**ELECTRONICS**

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BN68-00437Y-01

# Owner's Instructions

This device is a Class B digital apparatus.

# Important
# Safety Instructions

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with dry cloth.

7) Do not block any ventilation openings, Install in accordance with the manufacturer's instructions.

8) Do not install near any heat sources such as radiators, heat registers, or other apparatus (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particu larly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11) Only use attachments/accessories specified by the manufacturer.

12) Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

## CAUTION

**RISK OF ELECTRIC SHOCK DO NOT OPEN**

CAUTION: TO REDUCE THE RISK OF ELEC
TRIC SHOCK, DO NOT REMOVE COVER
(OR BACK). NO USER SERVICEABLE PARTS
INSIDE. REFER SERVICING TO QUALIFIED
SERVICE PERSONNEL.

This symbol indicates high voltage is present inside. It is dangerous to make any kind of contact with any inside part of this product.

This symbol alerts you that important literature concerning operation and maintenance has been included with this product.

*Note to CATV system installer*: This reminder is provided to call CATV system installer's attention to Article 820-40 of the National Electrical Code (Section 54 of Canadian Electrical Code, Part I), that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

*Caution: FCC/CSA regulations state that any unauthorized changes or modifications to this equipment may void the user's authority to operate it.*

*Caution: To prevent electric shock, match the wide blade of plug to the wide slot, and fully insert the plug.*

*Attention: pour eviter les chocs electriques, introduire la lame le plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.*

*Important*: One Federal Court has held that unauthorized recording of copyrighted TV programs is an infringement of U.S. copyright laws.

Certain Canadian programs may also be copyrighted and any unauthorized recording in whole or in part may be in violation of these rights.

## WARNING: To prevent damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.

As an ENERGY STAR Partner.

Samsung Electronics America, Inc. has determined that this product or product model meets the ENERGY STAR guidelines for energy efficiency.

# Important Warranty Information Regarding Television Format Viewing

Standard screen format televisions (4:3, the aspect ratio of the screen width to height) are primarily designed to view standard format full-motion video. The images displayed on them should primarily be in the standard 4:3 ratio format and constantly moving.
Displaying stationary graphics and images on screen, such as the dark top and bottom letterbox bars (wide screen pictures), should be limited to no more than 15% of the total television viewing per week.

Wide screen format televisions (16:9, the aspect ratio of the screen width to height) are primarily designed to view wide screen format full-motion video. The images displayed on them should primarily be in the wide screen 16:9 ratio format, or expanded to fill the screen if your model offers this feature, and constantly moving. Displaying stationary graphics and images on screen, such as the dark side-bars on non-expanded standard format television video and programming, should be limited to no more than 15% of the total television viewing per week.

Additionally, viewing other stationary images and text such as stock market reports, video game displays, station logos, web sites or computer graphics and patterns, should be limited as described above for all televisions. Displaying any stationary images that exceed the above guidelines can cause uneven aging of picture tubes (LCDs) that leave subtle, but permanent burned-in ghost images in the television picture. To avoid this, vary the programming and images, and primarily display full screen moving images, not stationary patterns or dark bars. On television models that offer picture sizing features, use these controls to view the different formats as a full screen picture.

Be careful in the selection and duration of television formats used for viewing. Uneven LCD aging as a result of format selection and use, as well as other burned-in images, is not covered by your Samsung limited warranty.

[Note]
If a still image is displayed for an extended period of time, residual images or blurring may appear.

When you need to leave the monitor unused for an extended period of time, adjust the settings so that the monitor automatically goes into energy saving mode or activates the screen saver to display moving images.

# FCC Information

## User Instructions

The Federal Communications Commission Radio Frequency Interference Statement includes the following warning:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television receptions, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.

## User Information

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
If necessary, consult your dealer or an experienced radio/television technician for additional suggestions. You may find the booklet called How to Identify and Resolve Radio/TV Interference Problems helpful. This booklet was prepared by the Federal Communications Commission. It is available from the U.S. Government Printing Office, Washington, DC 20402, Stock Number 004-000-00345-4.

The party responsible for product compliance:
SAMSUNG ELECTRONICS CO., LTD
America QA Lab of Samsung
3351 Michelson Drive,
Suite #290, Irvine, CA92612 USA

## Warning

User must use shielded signal interface cables to maintain FCC compliance for the product.
Provided with this monitor is a detachable power supply cord with IEC320 style terminations.
It may be suitable for connection to any UL Listed personal computer with similar configuration. Before making the connection, make sure the voltage rating of the computer convenience outlet is the same as the monitor and that the ampere rating of the computer convenience outlet is equal to or exceeds the monitor voltage rating.
For 120 Volt applications, use only UL Listed detachable power cord with NEMA configuration 5-15P type (parallel blades) plug cap. For 240 Volt applications use only UL Listed Detachable power supply cord with NEMA configuration 6015P type (tandem blades) plug cap.

## IC Compliance Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations of ICES-003.

Cet appareil Numérique de classe B respecte toutes les exigences du Règlemont NMB-03 sur les équipements produisant des interférences au Canada.

## Notice de Conformité IC

Cet appareil numérique de classe B respecte toutes les exigences du Règlement ICES-003 sur les équipements produisant des interférences au Canada.

## VCCI

This is a Class B product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

*This Class B digital apparatus complies with Canadian ICES-003.*
*Cet appareil numéique de la classe B est conforme à la norme NMB-003 du Canada.*

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause unesired operation.
This television receiver provides display of television closed captioning in accordance with §15.119 of the FCC rules.

CONTENTS

# Chapter 1: Your New TV

# Chapter 2: Installation

# Chapter 3: Special Features

# Chapter 4: Operation

CONTENTS

# Chapter One

## YOUR NEW TV

## List of Features

Your TV was designed with the latest technology. This TV is a high-performance unit that includes the following special features:

• Easy-to-use remote control

• Easy-to-use on-screen menu system

• Automatic timer to turn the TV on and off

• Adjustable picture and sound settings that can be stored in the TV's memory

• Automatic channel tuning for up to 181 channels

• A special filter to reduce or eliminate reception problems

• Fine tuning control for the sharpest picture possible

• A built-in multi-channel sound decoder for stereo and bilingual listening

• Built-in, dual channel speakers

• Headphone jack for private listening

• 16:9 letter box format available depending upon source

## List of Parts

Please make sure the following items are included with your LCD TV. If any items are missing, contact your dealer.

Remote Control
(BN59-00362B) &
Batteries (AAA x 2)
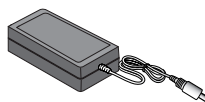
Adapter
(BN44-00074A)
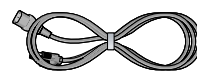
Power Cord
(3903-000085)
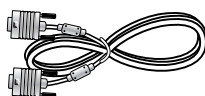
PC Video Cable
15-pin D-Sub Signal Cable
(BN39-00043A)
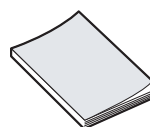
Owner's
Instructions

YOUR NEW TV

# Familiarizing Yourself with Your New TV

### Top Panel Buttons

The buttons on the top panel control your TV's basic features, including the on-screen menu. To use the more advanced features, you must use the remote control.

☛ Colors may vary depending on the model you purchase.



❶ **TV/VIDEO** (See Page 20)
Displays a menu of all of the available input sources (TV, VIDEO, S-VIDEO, Component 1, Component 2, PC).

❷ **MENU**
Press to see an on-screen menu of your TV's features.

❸ **– VOL +**
Press to increase or decrease the volume.

❹ **∨ CH ∧**
Press to change channels.
Also press to highlight various items on the on-screen menu.

❺ **⏻ POWER**
Press to turn the TV on and off.

❻ **SPEAKER**

❼ **REMOTE CONTROL SENSOR**
Aim the remote control towards this spot on the TV.

❽ **POWER INDICATOR**
Lights up when you turn the power off.

# YOUR NEW TV

## Rear Panel Jacks

Use the rear panel jacks to connect an A/V component that will be connected continuously, such as a VCR or a DVD player.

For more information on connecting equipment, see pages 7-14.

☛ Colors may vary depending on the model you purchase.

WOW, SRS and (●) symbol are trademarks of SRS Labs, Inc.
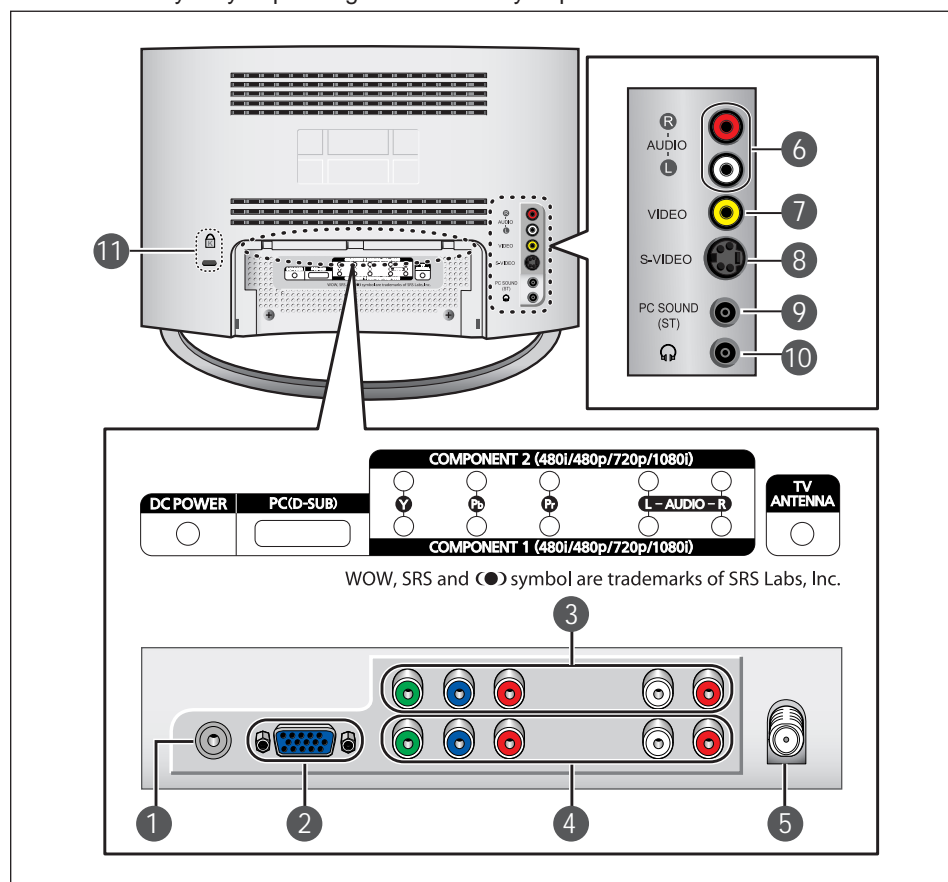
**❶ POWER INPUT**

**❷ PC VIDEO INPUT**
Connect to the video output port on your PC.

**❸ COMPONENT 2**
Connect a component video/audio.

**❹ COMPONENT 1**
Connect a component video/audio.

**❺ TV ANTENNA**
Connects to an antenna or to a cable TV system.

**❻ AUDIO INPUT**
Connect audio signal(L/R) from a camcorder or VCR.

**❼ VIDEO INPUT**
Connect a video signal from a camcorder or VCR.

**❽ SUPER VIDEO INPUT**
Connect an S-Video signal from a camcorder or VCR.

**❾ PC SOUND INPUT**

**❿ HEADPHONE JACK**
Connect a set of external headphones to this jack for private listening.

**⓫ KENSINGTON LOCK**
(See page 56)

English-**3**

## YOUR NEW TV

# Remote Control

## Frequently Used Buttons

You can use the remote control up to a distance of about 23 feet from the TV.
When using the remote, always point it directly at the TV.

**❶ POWER**
Turns the TV on and off.
(See Page 15)

**❷ P.MODE**
Adjusts the TV picture by selecting
one of the preset factory settings.
(See Page 22)

**❸ ASPECT**
Use to toggle the five screen size
options among Wide, Panorama,
Zoom 1, Zoom 2 and Normal.
(See Page 31)

**❹ MUTE**
Press to temporarily cut off
the sound. (See Page 15)

**❺ MENU**
Displays the main on-screen menu.

**❻ PC MODE**
Press to switch to the PC mode.

**❼ STILL**
Press to stop the action during
a particular scene. Press again to
resume normal video.
(See Page 31)

**❽ CH⌃ and CH⌄
(Channel UP/Down)**
Press CH⌃ or CH⌄ to change
channels.
**VOL + and VOL -**
Press to increase or decrease
the volume.

**❾ TV/VIDEO**
Press to display all of the available
video sources.

**❿ JOYSTICK**
Use to select on-screen menu
items and change menu values.
(The remote control will only
function with VCR or DVD units
that are compatible with the LCD TV.)



POWER    PC

P.MODE    ASPECT    STILL

1  2  3
4  5  6
7  8  9
+100  0  PRE-CH

VOL  CH
MUTE  +  TV/VIDEO
−

SLEEP    INFO

MENU    EXIT
ENTER

PIP  CAPTION  S.MODE  MTS
ON
BN59-00362

LOCATE
SIZE  TV/VIDEO  SWAP  CH
AUTO PROG. ADD/DEL
RESET  BN59-00362B

SAMSUNG

English-**4**
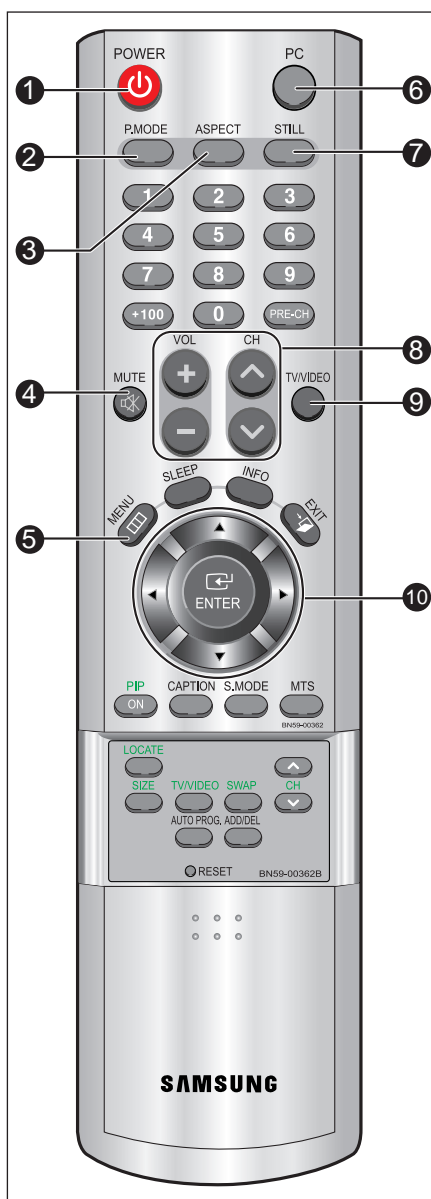
# YOUR NEW TV

## Convenient Buttons

You can use the remote control up to a distance of about 23 feet from the TV.
When using the remote, always point it directly at the TV.

**❶ +100**
Press to select channels over 100.
For example, to select channel 121,
press "+100", then press "2" and "1".
(See Page 19)

**❷ Sleep Timer**
Press to select a time for the TV to
turn off automatically.
(See Page 41)

**❸ PIP**
See the PIP screen section of this
manual. (See Page 29)

**CAPTION** (See Page 42)
Press to set caption on/off.

**S.MODE**
Adjust the TV sound by selecting
one of the preset factory settings
(or select your personal, customized
sound settings). (See Page 24)

**MTS
(Multi channel Television Stereo)**
Press to choose stereo, mono or
Separate Audio Program
(SAP broadcast). (See Page 35)

**❹ PIP controls** (See Page 29)
**LOCATE**
Press to move the PIP window to
any of the four corners of the
TV screen.
**SIZE**
Press to make the PIP window
double, large or small.
**TV/VIDEO**
Press to select one of the available
signal sources for the PIP window.
**SWAP**
Exchanges the video signal that is
currently displayed on the main
screen with the signal in the PIP
window.
**⌃ CH ⌄**
Displays the available channels
in sequence.
(These buttons change channels
in the PIP window only.)
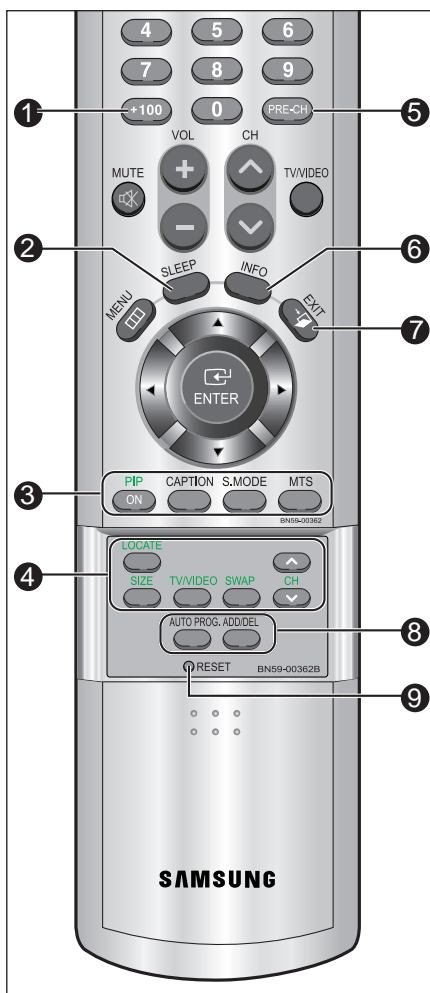
**❺ PRE-CH**
Tunes to the previous channel.
(See Page 15)

**❻ Info Display**
Use to see information on the
current broadcast. (See Page 16)

**❼ EXIT**
Press to exit the menu.

**❽ AUTO PROG.**
Use to store the broadcast/cable
channels that you receive.
(See Page 19)

**ADD/DEL**
Use to store and delete channels
to/from memory. (See Page 20)

**❾ RESET**
When your remote does not work,
change the batteries and press the
RESET button for 2-3 seconds
before use.

## Installing Batteries in the Remote Control

**1**
Slide the cover out
completely.
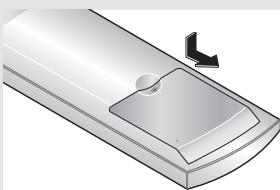
**2**
Install two AAA size
batteries.
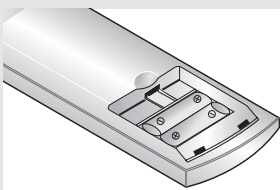
◀Make sure to match the "+" and
"–" ends of the batteries with the
diagram inside the compartment.

**3**
Replace the cover.
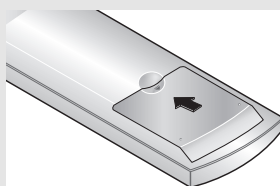
◀Remove the batteries and store them
in a cool, dry place if you won't be
using the remote control for a long
time.

The remote control can be used
up to about 23 feet from the TV.

(Assuming typical TV usage,
the batteries last for about one year.)

## The remote control doesn't work!

Check the following:

1. Is the TV power switch on?

2. Are the plus and minus ends of the batteries reversed?

3. Did the battery run out?

4. Is the power out, or is the power cord unplugged?

5. Is there a special fluorescent light or a neon sign nearby?

# Chapter Two

INSTALLATION

## Connecting VHF and UHF Antennas

If your antenna has a set of leads that look like this, see "Antennas with 300-ohm Flat Twin Leads", below.
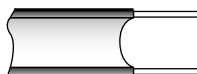
If your antenna has one lead that looks like this, see "Antennas with 75-ohm Round Leads", on page 8.

If you have two antennas, see "Separate VHF and UHF Antennas", on page 8.

### Antennas with 300-ohm Flat Twin Leads

If you are using an off-air antenna (such as a roof antenna or "rabbit ears") that has 300-ohm twin flat leads, follow the directions below.

**1**

Place the wires from the twin leads under the screws on a 300-75 ohm adaptor (not supplied). Use a screwdriver to tighten the screws.
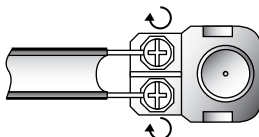
**2**

Plug the adaptor into the TV ANTENNA terminal on the bottom of the back panel.
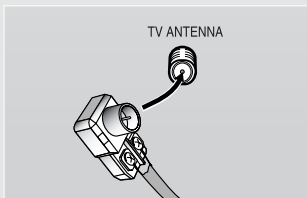
TV ANTENNA

**I**NSTALLATION

### Antennas with 75-ohm Round Leads

**1**

Plug the antenna
lead into the TV
ANTENNA terminal
on the bottom of the
back panel.
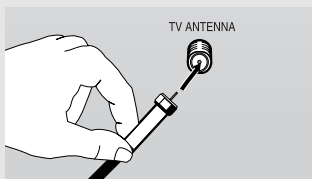
### Separate VHF and UHF Antennas

If you have two separate antennas for your TV (one VHF and one UHF), you must
combine the two antenna signals before connecting the antennas to the TV. This
procedure requires a an optional combiner-adaptor (available at most electronics shops).

**1**

Connect both antenna
leads to the combiner.
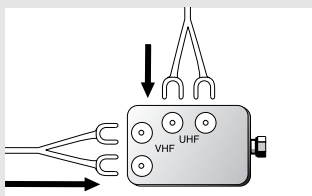
**2**

Plug the combiner
into the TV
ANTENNA terminal
on the bottom of
the rear panel.
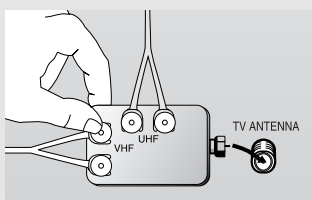
## Connecting Cable TV

To connect to a cable TV system, follow the instructions below.

### Cable without a Cable Box

**1**

Plug the incoming
cable into the TV
ANTENNA terminal
on back of the TV.
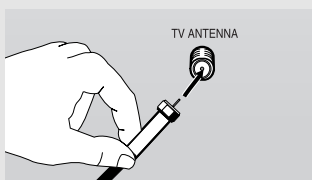
◀ Because this TV is cable-ready,
you do not need a cable box to
view unscrambled cable channels.

**I**NSTALLATION

## Connecting to a Cable Box that Descrambles All Channels

**1**

Find the cable that is connected to the ANTENNA OUT terminal on your cable box.
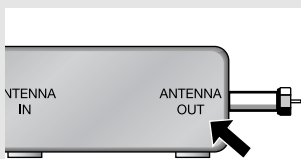
◀This terminal might be labeled "ANT OUT", "VHF OUT", or simply, "OUT".

ANTENNA IN          ANTENNA OUT

**2**

Connect the other end of this cable to the TV ANTENNA terminal on the back of the TV.

TV ANTENNA
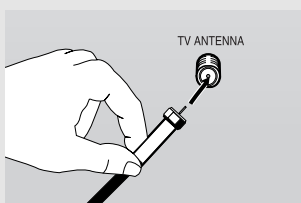
## Connecting to a Cable Box that Descrambles Some Channels

If your cable box descrambles only some channels (such as premium channels), follow the instructions below. You will need a two-way splitter, an RF (A/B) switch, and four lengths of coaxial cable. (These items are available at most electronics stores.)

**1**

Find and disconnect the cable that is connected to the ANTENNA IN terminal on your cable box.
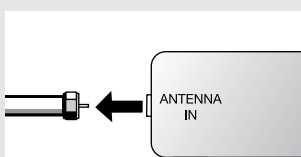
◀This terminal might be labeled "ANT IN", "VHF IN", or simply, "IN".

ANTENNA IN

**2**

Connect this cable to a two-way splitter.

Incoming cable          Splitter

**3**
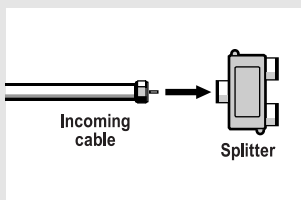
Connect a coaxial cable between an OUTPUT terminal on the splitter and the IN terminal on the cable box.

Incoming cable          Splitter          IN    CABLE    OUT

Cable Box

English-**9**
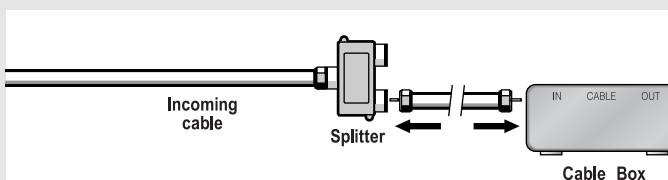
**INSTALLATION**

**4**

Connect a coaxial cable between the ANTENNA OUT terminal on the cable box and the B–IN terminal on the A/B switch.

Incoming cable
Splitter
IN    CABLE    OUT
Cable Box
RF (A/B) Switch
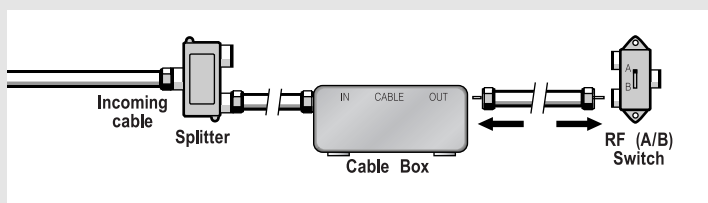
**5**

Connect another cable between the other OUT terminal on the splitter and the A–IN terminal on the RF (A/B) switch.

Incoming cable
Splitter
IN    CABLE    OUT
Cable Box
RF (A/B) Switch
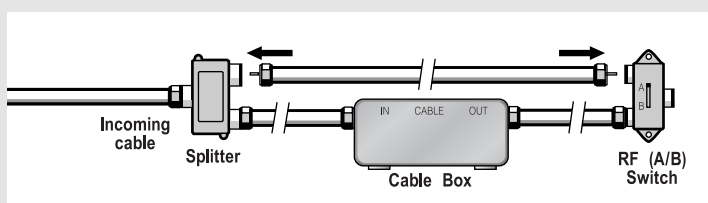
**6**

Connect the last coaxial cable between the OUT terminal on the RF (A/B) switch and the VHF/UHF terminal on the rear of the TV.

Incoming cable
Splitter
IN    CABLE    OUT
Cable Box
RF (A/B) Switch
TV ANTENNA
TV Rear
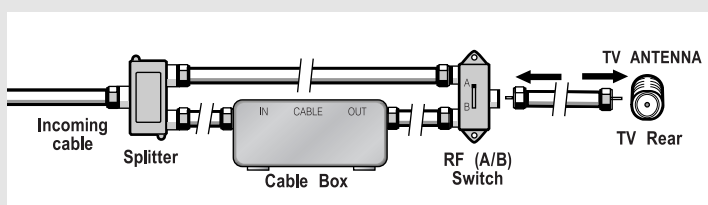
After you've made this connection, set the A/B switch to the "A" position for normal viewing. Set the A/B switch to the "B" position to view scrambled channels.
(When you set the A/B switch to "B," you will need to tune your TV to the cable box's output channel, which is usually channel 3 or 4.)

**I**NSTALLATION

# Connecting a VCR

These instructions assume that you have already connected your TV to an antenna or a cable TV system (according to the instructions on pages 7-9).
Skip step 1 if you have not yet connected to an antenna or a cable system.

**1**

Unplug the cable or antenna from the back of the TV.
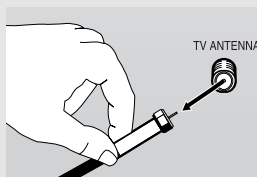
TV ANTENNA

**2**

Connect the cable or antenna to the ANTENNA IN terminal on the back of the VCR.

VCR  Rear  Panel

IN
ANTENNA
OUT
AUDIO   VIDEO
OUT      OUT
L    R

**Incoming Cable  or Antenna**

**3**
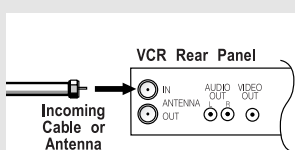
Connect a coaxial cable between the ANTENNA OUT terminal on the VCR and the antenna terminal on the TV.

VCR  Rear  Panel

IN
ANTENNA
OUT
AUDIO  VIDEO
OUT     OUT
L   R

TV  Rear  Panel
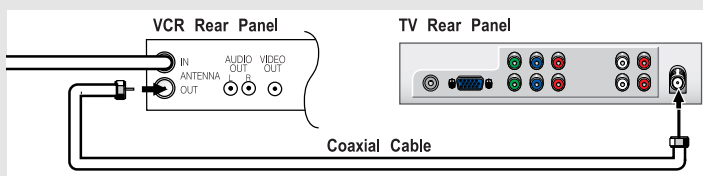
**Coaxial  Cable**

A coaxial cable is usually included with a VCR. (If not, check your local electronics store).

**4**

Connect a set of audio cables between the AUDIO OUT jacks on the VCR and the AUDIO jacks on the TV.

VCR  Rear  Panel

IN
ANTENNA
OUT
AUDIO  VIDEO
OUT     OUT
L   R

TV  Rear  Panel

R
AUDIO
L

VIDEO
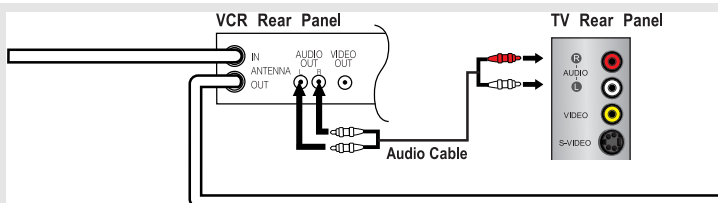
S-VIDEO

**Audio Cable**

If you have a "mono" (non-stereo) VCR, use the Y-connector (not supplied) to hook up to the left and right audio input jacks of the TV.  If your VCR is stereo, you must connect two cables.

**5**

Connect a video cable between the VIDEO OUT jack on the VCR and the VIDEO jack on the TV.

VCR  Rear  Panel

IN
ANTENNA
OUT
AUDIO  VIDEO
OUT     OUT
L   R

TV  Rear  Panel

R
AUDIO
L

VIDEO

S-VIDEO

**Video  Cable**
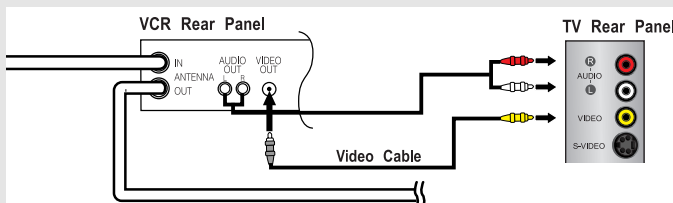
Follow the instructions in "Viewing a VCR or Camcorder Tape" to view your VCR tape.

# Each external input source device has a different back panel configuration.

**I**NSTALLATION

# Connecting an S-VHS VCR

Your Samsung TV can be connected to an S-Video signal from an S-VHS VCR.
(This connection delivers a better picture as compared to a standard VHS VCR.)

**1**

To begin, follow
steps 1–3 in the
previous section to
connect the antenna
or cable to your
VCR and your TV.

VCR Rear Panel          TV Rear Panel

Coaxial Cable
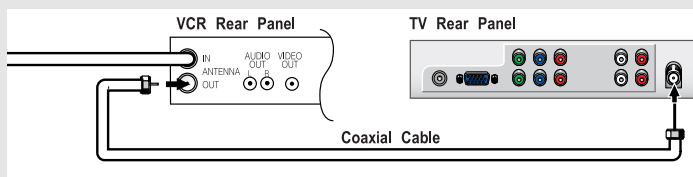
**2**

Connect a set of audio
cables between the
AUDIO OUT jacks on
the  VCR and the
AUDIO INPUT jacks
on the TV.

VCR Rear Panel          TV Rear Panel

Audio Cable
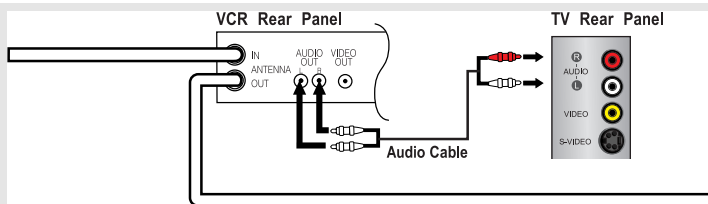
**3**

Connect an S-video
cable between the
S-VIDEO OUT jack on
the VCR and the
S-VIDEO INPUT jack
on the TV.

VCR Rear Panel          TV Rear Panel
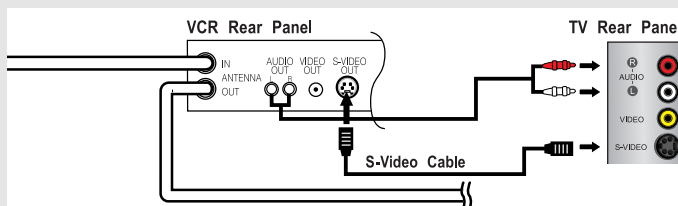
S-Video Cable

An S-video cable is usually included with an S-VHS VCR.

(If not, check your local electronics store.)

# Each external input source device has a different back panel configuration.

# Connecting a DVD Player

The rear panel jacks on your TV make it easy to connect a DVD player to your TV.

**1**

Connect a set of audio cables between the L, R AUDIO INPUT jacks on the TV and the AUDIO OUT jacks on the DVD player.

DVD Player Rear Panel                    TV Rear Panel

Audio Cable
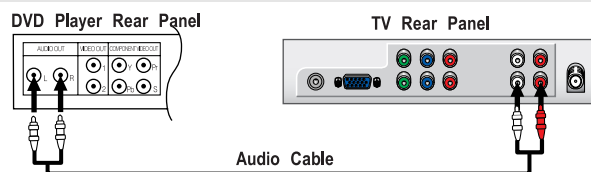
**2**

Connect a video cable between the COMPONENT1 (Y, Pb, Pr) jacks on the TV and the Y, Pb, Pr jacks on the DVD player.

DVD Player Rear Panel                    TV Rear Panel

Video Cable
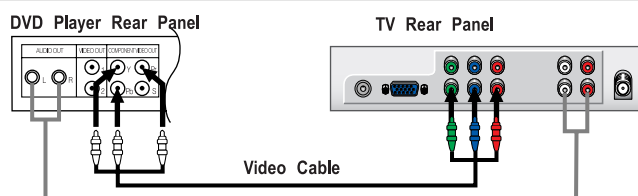
Note: For an explanation of Component video, see your DVD player owner's manual.

# Each external input source device has a different back panel configuration.

**I**NSTALLATION

# Connecting a PC

Note: This figure shows the Standard Connector-jack panel. The actual configuration
on your TV may be different, depending on the model.



TV rear panel

PC rear

PC VIDEO INPUT (15-pin D-SUB)     PC SOUND INPUT (Optional)
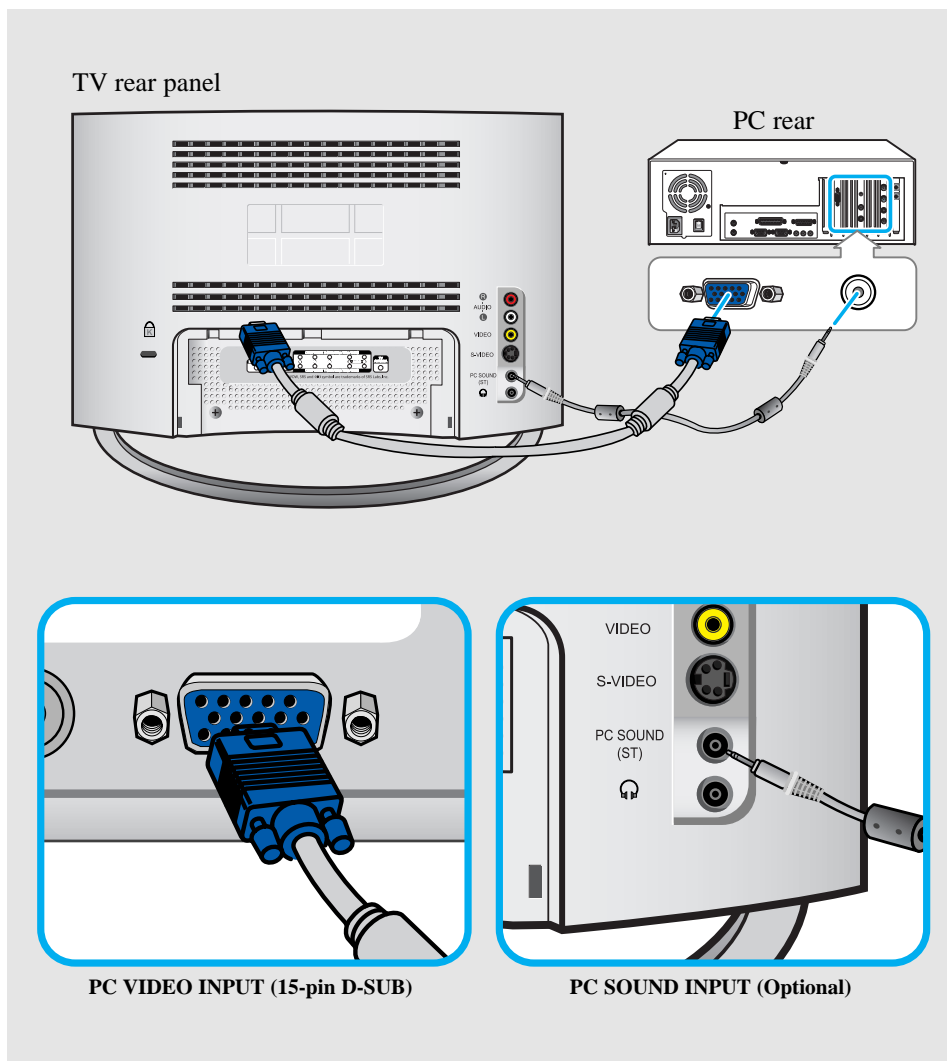
• **PC AUDIO INPUT**
Connect these to the audio-output jacks on your PC.

• **PC VIDEO INPUT**
Connect to the video output port on your PC.

# Each external input source device has a different back panel configuration.

English-**14**

# Chapter Three

## SPECIAL FEATURES

## Turning the TV On and Off

Press the **POWER** button.
You can also use the Power button on the top panel.

## Changing Channels

### Using the Channel Buttons

**1**

Press the **CH** ∧ / ∨ buttons to change channels.

When you press the **CH** ∧ / ∨ buttons, the TV changes channels in sequence. You will see all the channels that the TV has memorized. (The TV must have memorized at least three channels.) You will not see channels that were either erased or not memorized.

### Using the PRE-CH Button to select the Previous Channel

**1**

Press the **PRE-CH** button.
The TV will switch to the last channel viewed.

To quickly switch between two channels that are far apart, tune to one channel, then use the number button to select the second channel. Then, use the PRE-CH button to quickly alternate between them.

## Adjusting the Volume

**1**

Press the **VOL +/–** buttons to increase or decrease the volume.

### Using Mute

At any time, you can temporarily cut off the sound using the Mute button.

**1**

Press **MUTE** and the sound cuts off.

The word " 🔇 Mute " will appear in the lower-left corner of the screen.

**2**

To turn mute off, press the **MUTE** button again, or simply
press the **VOL +/-** buttons.

English-15

SPECIAL FEATURES

# Viewing the Display

The display identifies the current channel and the status of certain audio-video settings.

## 1

Press the **INFO** button on the remote control.

The TV will display the channel, the type of sound, and the status of certain picture and sound settings.

| Air    3 |
| --- |
| Mono |

| Picture | Dynamic |
| --- | --- |
| Sound | Custom |
| MTS | Stereo |
| WOW | Off |
| Clock | 12 : 00  am |

◀ The on-screen displays disappear after about ten seconds.
◀ Press the button once more or wait approximately 10 seconds and it disappears automatically.
◀ Allows the user to adjust the settings according to his/her preference and shows the current settings.

# Viewing the Menus

## 1

With the power on, press the **MENU** button.

The main menu appears on the screen. It's left side has five icons: Input, Picture, Sound, Channel and Setup.

| TV | | Input |
| --- | --- | --- |
| Input | TV/Video        : TV | ▶ |
| Picture | Edit Name | ▶ |
| Sound | | |
| Channel | | |
| Setup | | |
| Move | Enter | Return |
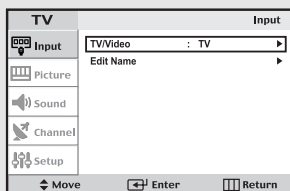
◀ The on-screen menus disappear from the screen after about thirty seconds.

## 2

Use the **UP/DOWN** ▲▼ buttons to select one of the 5 icons. Then press **ENTER( )** to access the icon's sub-menu.

## 3

Press the **MENU** button to exit.

◀ You can also use the TV/Video( ) buttons on the control panel of the TV to make selections.

English-16

# Chapter Four

OPERATION

## Plug & Play Feature

When the TV is initially powered On, two basic customer settings proceed automatically and subsequently: Setting Auto program, Clock.

**1**

Press the **POWER** button on the remote control.

The message "Plug & Play" is displayed.

**Plug & Play**

**2**

Press the **UP/DOWN ▲▼** buttons to select "English", then press the **ENTER** button.

| Language |
|---|
| **English** |
| Français |
| Español |
| Português |
| ◆ Move    Enter    Stop |

Press the **UP/DOWN ▲▼** buttons to select "Air", then press the **ENTER** button.

| Air/CATV |
|---|
| **Air** |
| STD |
| HRC |
| IRC |
| ◆ Move    Enter    Stop |

**3**

Press the **ENTER** Button. The TV will begin memorizing all of the available channels.

Press the **ENTER** button to stop.

| Auto Program |
|---|
| Antenna Input Check |
| Start    Exit |
| ◆ Move    Enter    Clock |

| Auto Program |
|---|
| Air 43 |
| Stop    Exit |
| ◆ Move    Enter    Clock |

**4**

Press the **LEFT/RIGHT ◆▶** buttons to move to the hour or minute.
Set the hour or minute by pressing the **UP/DOWN ▲▼** buttons. (refer to "Setting the Clock" on page 38.)

| Clock |
|---|
| Hour  Minute  am/pm |
| 12   05   am |
| ◆ Move   Adjust   Stop |

**5**

The message "Enjoy your watching." is displayed.

**Enjoy your watching**

English-**17**

OPERATION

# Memorizing the Channels

Your TV can memorize and store all of the available channels for both "off-air" (antenna) and cable channels. After the available channels are memorized, use the CH ⌃ and CH ⌄ buttons to scan through the channels. This eliminates the need to change channels by entering the channel digits. There are three steps for memorizing channels: selecting a broadcast source, memorizing the channels (automatic) and adding and deleting channels (manual).

### Selecting the Video Signal-source

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV (i.e., an antenna or a cable system).

**1**

Press the **MENU** button to display the menu.

Press the **UP/DOWN** ▲▼ buttons to select "Channel", then press the **ENTER** button.

| TV | | Channel |
|---|---|---|
| Input | Air/CATV : Air | ▶ |
| Picture | Auto Program | ▶ |
| Sound | Add/Delete | ▶ |
| Channel | Fine Tune | ▶ |
| Setup | | |
| ‡ Move | ↵ Enter | Return |
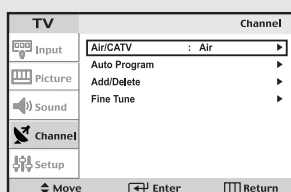
**2**

Repeatedly press the **ENTER** button to cycle through these choices:
Air (antenna), STD, HRC or IRC (all cable TV).

Press the **UP/DOWN** ▲▼ buttons to select the Video signal source, then press the **ENTER** button.

| TV | | Channel |
|---|---|---|
| Input | Air/CATV : | Air |
| Picture | Auto Program | STD |
| Sound | Add/Delete | HRC |
| Channel | Fine Tune | IRC |
| Setup | | |
| ‡ Move | ↵ Enter | Return |
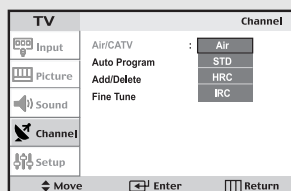
Note : STD, HRC and IRC  identify various types of cable
TV systems. Contact your local cable company to identify
the type of cable system that exists in your particular area.

At this point the signal source has been selected.
Proceed to "Storing Channels in Memory" (next page).

**O**PERATION

## Storing Channels in Memory (Automatic Method)

### 1

First, select the correct signal source (Air, STD, HRC, IRC). See steps 1~2 on previous page.

Press the **MENU** button.

Press the **UP/DOWN** ▲▼ buttons to select "Channel", then press the **ENTER** button.

| TV | | | Channel |
|---|---|---|---|
| Input | Air/CATV | : Air | ▶ |
| Picture | Auto Program | | ▶ |
| | Add/Delete | | ▶ |
| Sound | Fine Tune | | ▶ |
| Channel | | | |
| Setup | | | |
| ♦ Move | | ↵ Enter | ⫿⫿⫿ Return |

### 2
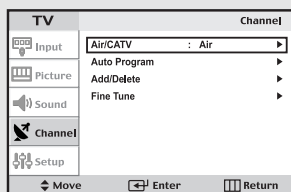
Press the **UP/DOWN** ▲▼ buttons to select "Auto program". Press the **ENTER** button.
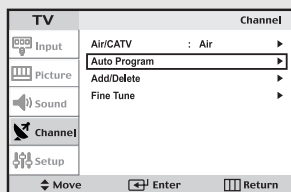
| TV | | | Channel |
|---|---|---|---|
| Input | Air/CATV | : Air | ▶ |
| Picture | Auto Program | | ▶ |
| | Add/Delete | | ▶ |
| Sound | Fine Tune | | ▶ |
| Channel | | | |
| Setup | | | |
| ♦ Move | | ↵ Enter | ⫿⫿⫿ Return |

### 3

Press the **ENTER** button.
The TV will begin memorizing all of the available channels.

**Auto Program**

Air 21

Start     Return

◀▶ Move     ↵ Enter
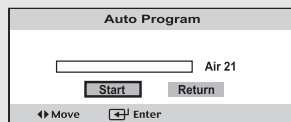
### 4

After all the available channels are stored, the Auto program menu reappears.
Press the **MENU** button to exit.

**Auto Program**

Air 40

Stop     Return

◀▶ Move     ↵ Enter
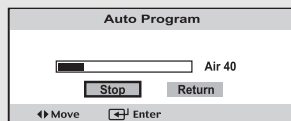
◀ The TV automatically cycles through all of the available channels and stores them in memory. This takes about one to two minutes.

Press **ENTER** at any time to interrupt the memorization process and return to the CHANNEL menu.

### To check the channels stored in memory

Press the **CH** ⌃ / ⌄ button.

• Only the channels stored in memory are selected.

### To select channels over 100,

Ex) Press ⬤ → ⬤ → ⬤ to select channel 108.

### ADD and DEL Channels (Manual Method)

**1**

Use the number buttons to directly select the channel to Add or Delete.

Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Channel", then press the **ENTER** button.

Press the **UP/DOWN ▲▼** buttons to select "Add/Delete". Press the **ENTER** button.

Press the **LEFT/RIGHT ◀▶** buttons to select "Add" or "Delete". Press the **ENTER** button. Press the **EXIT** button.

| TV | | Channel |
|---|---|---|
| Input | Air/CATV | : Air ▶ |
| Picture | Auto Program | ▶ |
| Sound | Add/Delete | ▶ |
| Channel | Fine Tune | ▶ |
| Setup | | |

◆ Move   ↵ Enter   ||| Return

**Add/Delete**

Air 28    Not in Memory

Add          Return

◇ CH Change    ◀▶ Move    ↵ Add

**Add/Delete**

Air 28    in Memory

Delete          Return

◇ CH Change    ◀▶ Move    ↵ Delete
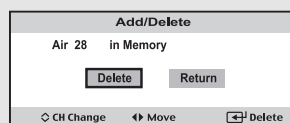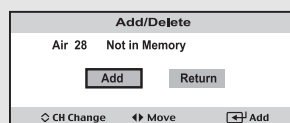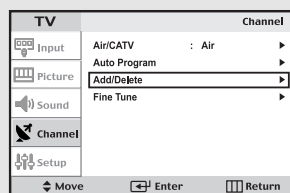
**2(Alternate method)**

Press the **ADD/DEL** button.
Repeatedly pressing **ENTER** will alternate between "Add"and"Delete".
Press the **LEFT/RIGHT ◀▶** buttons to select Exit, then press **ENTER** to exit.

You can view any channel (including an erased channel) by using the number buttons on the remote control.

## To Select TV/Input

Use to select TV or other external input sources connected to the TV.
Use to select the screen of your choice.

**1**

Press the **MENU** button to display the on-screen menu.

Press the **ENTER** button.

| TV | | Input |
|---|---|---|
| Input | TV/Video | : TV ▶ |
| Picture | Edit Name | ▶ |
| Sound | | |
| Channel | | |
| Setup | | |

◆ Move   ↵ Enter   ||| Return

**2**
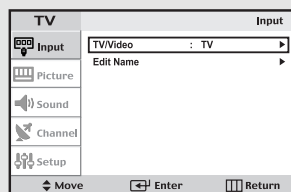
Press the **ENTER** button to select "TV", then press the **ENTER** button.

**3**

Press the **UP/DOWN ▲▼** buttons to select the Input source, then press **ENTER** .

| TV | | TV/Video |
|---|---|---|
| Input | TV | |
| | AV | : --- |
| Picture | S-Video | : --- |
| Sound | Component1 | : --- |
| | Component2 | : --- |
| Channel | PC | : --- |
| Setup | | |

◆ Move   ↵ Enter   ||| Return

English-**20**
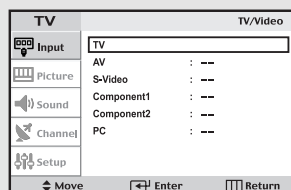
OPERATION

# To Edit the Input Source Name

Name the input device connected to the input jacks to make your input source selection easier.

## 1

Press the
**UP/DOWN ▲▼** buttons
to select "Edit Name",
then press the
**ENTER** button.

| TV | | Input |
|---|---|---|
| **Input** | TV/Video : TV | ▶ |
| Picture | Edit Name | ▶ |
| Sound | | |
| Channel | | |
| Setup | | |
| ◆ Move | ← Enter | ⫼ Return |

## 2
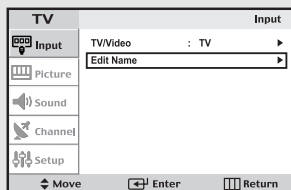
Press the
**UP/DOWN ▲▼** buttons
to select
"AV", "S-Video",
"Component1",
"Component2" or "PC"
then press the
**ENTER** button.

| TV | | Edit Name |
|---|---|---|
| **Input** | AV : ·— | ▶ |
| Picture | S-Video : ·— | ▶ |
| Sound | Component1 : ·— | ▶ |
| | Component2 : ·— | ▶ |
| Channel | PC : ·— | ▶ |
| Setup | | |
| ◆ Move | ← Enter | ⫼ Return |

## 3

Press the
**UP/DOWN ▲▼** buttons
repeatedly until the
correct VCR appears.

After the VCR is
entered, press the
**ENTER** button.
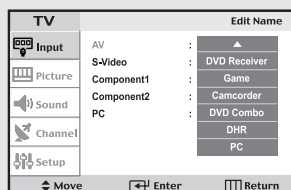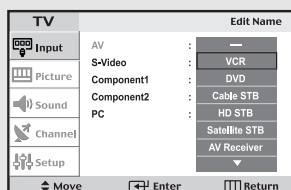
| TV | | Edit Name |
|---|---|---|
| **Input** | AV : — | |
| Picture | S-Video : | VCR |
| | Component1 : | DVD |
| Sound | Component2 : | Cable STB |
| Channel | PC : | HD STB |
| | | Satellite STB |
| Setup | | AV Receiver |
| ◆ Move | ← Enter | ⫼ Return |

| TV | | Edit Name |
|---|---|---|
| **Input** | AV : | ▲ |
| Picture | S-Video : | DVD Receiver |
| | Component1 : | Game |
| Sound | Component2 : | Camcorder |
| Channel | PC : | DVD Combo |
| | | DHR |
| Setup | | PC |
| ◆ Move | ← Enter | ⫼ Return |

# Using Automatic Picture Settings

Your TV has four automatic picture settings ("Custom", "Dynamic", "Standard", and "Movie") that are preset at the factory.  You can activate either Dynamic, Standard, or Movie by pressing P.MODE (or by making a selection from the menu). Or, you can select "Custom" which automatically recalls your personalized picture settings.

## 1
Press the **MENU** button to display the menu.

Press the **UP/DOWN**▲▼ buttons to select "Picture", then press the **ENTER**⊞ button.

| TV | | Picture |
|---|---|---|
| Input | Picture Mode | : Dynamic ▶ |
| | Custom Picture | ▶ |
| Picture | Color Tone | : Standard ▶ |
| Sound | Size | : Wide ▶ |
| Channel | PIP | ▶ |
| Setup | | |
| ♦ Move | ⊞ Enter | Ⅲ Return |
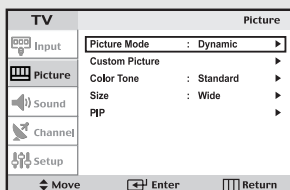
## 2
Press the **UP/DOWN**▲▼ buttons to select the "Dynamic", "Standard", "Movie" or "Custom" picture setting.

Press **ENTER**⊞ .
Press **MENU** twice to exit.

| TV | | Picture |
|---|---|---|
| Input | Picture Mode | : Custom |
| | Custom Picture | Dynamic |
| Picture | Color Tone | : Standard |
| Sound | Size | : Movie |
| Channel | PIP | |
| Setup | | |
| ♦ Move | ⊞ Enter | Ⅲ Return |

Alternate method:

Simply press the **P.MODE** button on the remote control to select one of the standard picture settings.

- Choose *Dynamic* to increase the clarity and sharpness of the picture.
- Choose *Standard* for the standard factory settings.
- Choose *Movie* when viewing the Movie.
- Choose *Custom* if you want to adjust the settings according to personal preference (see "Customizing the Picture, page 23).

OPERATION

# Customizing the Picture

You can use the on-screen menus to change the contrast, brightness, sharpness, color and tint according to personal preference.
(Alternatively, you can use one of the "automatic" settings. See previous page.)

## 1

Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Picture", then press the **ENTER**⏎ button.

| TV | | Picture |
|---|---|---|
| Input | Picture Mode | : Dynamic ▶ |
| Picture | Custom Picture | ▶ |
| Sound | Color Tone | : Standard ▶ |
| Channel | Size | : Wide ▶ |
| Setup | PIP | ▶ |

‡ Move   ⏎ Enter   ▥ Return

## 2
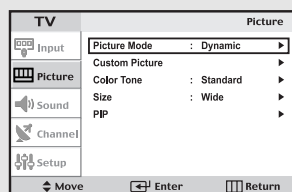
Press the **UP/DOWN ▲▼** buttons to select "Custom Picture", then press the **ENTER**⏎ button.

| TV | | Picture |
|---|---|---|
| Input | Picture Mode | : Dynamic ▶ |
| Picture | Custom Picture | ▶ |
| Sound | Color Tone | : Standard ▶ |
| Channel | Size | : Wide ▶ |
| Setup | PIP | ▶ |

‡ Move   ⏎ Enter   ▥ Return

## 3

Press the **ENTER**⏎ buttons to select a particular item.

| TV | | Custom Picture |
|---|---|---|
| Input | Contrast | 90 |
| Picture | Brightness | 50 |
| Sound | Sharpness | 75 |
| Channel | Color | 50 |
| Setup | Tint | 50 G▭R 50 |

‡ Move   ⏎ Enter   ▥ Return

## 4

Press the **LEFT/RIGHT◀▶** buttons to decrease or increase the value of a particular item. For example, if you select "Contrast", pressing **ENTER**⏎ increases it.

Press the **MENU** button to exit.
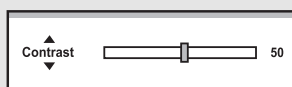
Contrast   ▭  50

Press the **UP/DOWN ▲▼** buttons to select Contrast, Brightness, Sharpness, Color or Tint.

English-**23**

## Using Automatic Sound Settings

Your TV has five automatic sound settings ("Custom", "Standard", "Music", "Movie" and "Speech") that are preset at the factory. You can activate any of them by pressing the S.MODE button (or by making a selection from the on-screen menu). Or, you can select "Custom Sound", which automatically recalls your personalized sound settings.
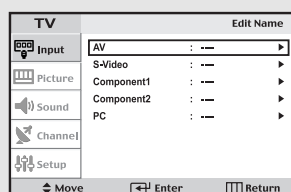
**1**

Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Sound", then press the **ENTER** button.

Press the **UP/DOWN ▲▼** buttons to select "Sound Mode", than press the **ENTER** button.

| TV | | Sound |
|---|---|---|
| Input | Sound Mode | : Custom ▶ |
| Picture | Custom Sound | ▶ |
| | WOW | : Off ▶ |
| Sound | Auto Volume | : Off ▶ |
| Channel | MTS | : Stereo ▶ |
| | Headphone | ▶ |
| Setup | Sound Select | : Main ▶ |
| ◆ Move | ◄┘ Enter | ▥ Return |

**2**
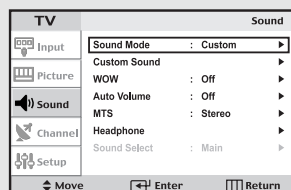
Press the **UP/DOWN ▲▼** buttons repeatedly to select the "Standard", "Music", "Movie", "Speech", or "Custom" sound settings. Press **MENU** to exit.

| TV | | Sound |
|---|---|---|
| Input | Sound Mode | : **Custom** |
| Picture | Custom Sound | **Standard** |
| | WOW | : **Music** |
| Sound | Auto Volume | : **Movie** |
| Channel | MTS | : **Speech** |
| | Headphone | |
| Setup | Sound Select | : Main |
| ◆ Move | ◄┘ Enter | ▥ Return |
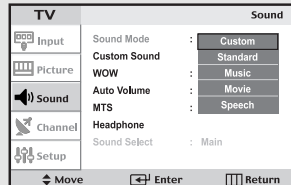
Alternate method:
Simply press the the **S.MODE** button on the remote control to select one of the standard sound settings.

•   Choose *Standard* for the standard factory settings.
•   Choose *Music* when watching music videos or concerts.
•   Choose *Movie* when watching movies.
•   Choose *Speech* when watching a show that is mostly dialogue (i.e., news).
•   Choose *Custom* to recall your personalized settings.

English-**24**

# Customizing the Sound

The sound settings can be adjusted to suit your personal preference.
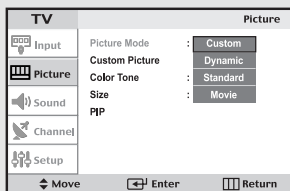(Alternatively, you can use one of the "automatic" settings. See previous page.)

## 1

Press the **MENU** button
to display the menu.

Press the
**UP/DOWN ▲▼** buttons
to select "Sound", then
press the **ENTER** 
button.

| TV | | Sound |
|---|---|---|
| **Input** | Sound Mode | : Custom ▶ |
| **Picture** | Custom Sound | ▶ |
| | WOW | : Off ▶ |
| **Sound** | Auto Volume | : Off ▶ |
| **Channel** | MTS | : Stereo ▶ |
| | Headphone | ▶ |
| **Setup** | Sound Select | : Main ▶ |
| ◆ Move | ↵ Enter | Return |

## 2
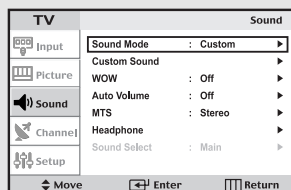
Press the
**UP/DOWN ▲▼** buttons
to select "Custom Sound",
then press the **ENTER** 
button.

| TV | | Sound |
|---|---|---|
| **Input** | Sound Mode | : Custom ▶ |
| **Picture** | Custom Sound | ▶ |
| | WOW | : Off ▶ |
| **Sound** | Auto Volume | : Off ▶ |
| **Channel** | MTS | : Stereo ▶ |
| | Headphone | ▶ |
| **Setup** | Sound Select | : Main ▶ |
| ◆ Move | ↵ Enter | Return |

## 3

Press the
**LEFT/RIGHT ◀▶**
buttons to select a
particular item to be
changed.

Press the
**UP/DOWN ▲▼** buttons
to increase or decrease
the value of a particular
item.

Press the **MENU** button
to exit.
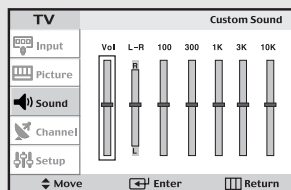
| TV | | | | | | | Custom Sound |
|---|---|---|---|---|---|---|---|
| **Input** | Vol | L~R | 100 | 300 | 1K | 3K | 10K |
| **Picture** | | | | | | | |
| **Sound** | | | | | | | |
| **Channel** | | | | | | | |
| **Setup** | | | | | | | |
| ◆ Move | | ↵ Enter | | | | | Return |

# Selecting a Menu Language

## 1
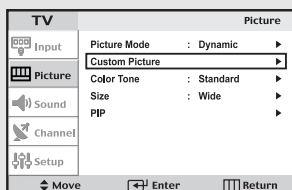
Press the **MENU** button to display the menu.

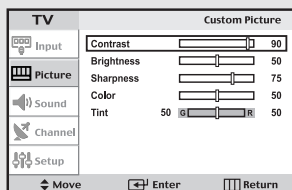Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.

| TV | | Setup |
|---|---|---|
| Input | Time | ▶ |
| Picture | Plug&Play | ▶ |
| | V-Chip | ▶ |
| Sound | Caption | ▶ |
| Channel | Language : English | ▶ |
| | Blue Screen : Off | ▶ |
| Setup | PC Setup | ▶ |
| ◆ Move | Enter | Return |

## 2
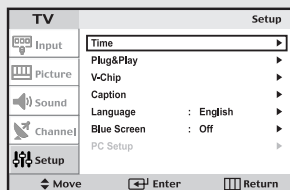
Press the **UP/DOWN ▲▼** buttons to select Language.

Press the **ENTER** button.

| TV | | Setup |
|---|---|---|
| Input | Time | ▶ |
| Picture | Plug&Play | ▶ |
| | V-Chip | ▶ |
| Sound | Caption | ▶ |
| Channel | Language : English | ▶ |
| | Blue Screen : Off | ▶ |
| Setup | PC Setup | ▶ |
| ◆ Move | Enter | Return |

## 3
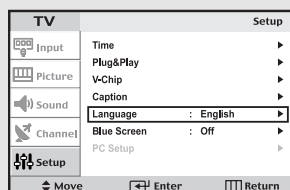
Press the **UP/DOWN ▲▼** buttons to select Language, Français, Español, English or Português.

Press the **MENU** button to exit.
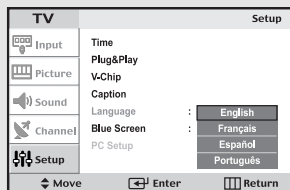
| TV | | Setup |
|---|---|---|
| Input | Time | |
| Picture | Plug&Play | |
| | V-Chip | |
| Sound | Caption | |
| Channel | Language : | English |
| | Blue Screen : | Français |
| Setup | PC Setup | Español |
| | | Português |
| ◆ Move | Enter | Return |

## Setting the Blue Screen Mode

If no signal is being received or the signal is very weak, a blue screen automatically replaces the noisy picture background.
If you wish to continue viewing the poor picture, you must set the "Blue screen" mode to "Off".

**1**
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.

| TV | | Setup |
|----|----|----|
| Input | Time | ▶ |
| Picture | Plug&Play | ▶ |
| | V-Chip | ▶ |
| Sound | Caption | ▶ |
| Channel | Language : English | ▶ |
| | Blue Screen : Off | ▶ |
| Setup | PC Setup | ▶ |
| �‡ Move | ◄┘ Enter | Ⅲ Return |
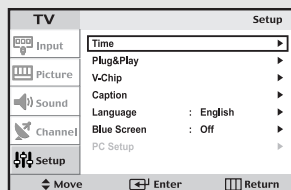
**2**
Press the **UP/DOWN ▲▼** buttons to select "Blue Screen", then press the **ENTER** button.

| TV | | Setup |
|----|----|----|
| Input | Time | ▶ |
| | Plug&Play | ▶ |
| Picture | V-Chip | ▶ |
| Sound | Caption | ▶ |
| | Language : English | ▶ |
| Channel | Blue Screen : Off | ▶ |
| Setup | PC Setup | ▶ |
| ‡ Move | ◄┘ Enter | Ⅲ Return |

**3**
Press the **UP/DOWN ▲▼** buttons to set Blue Screen "On" or "Off".

Press the **MENU** button to exit.

| TV | | Setup |
|----|----|----|
| Input | Time | |
| | Plug&Play | |
| Picture | V-Chip | |
| Sound | Caption | |
| | Language : English | |
| Channel | Blue Screen : Off | |
| Setup | PC Setup On | |
| ‡ Move | ◄┘ Enter | Ⅲ Return |

◄ Pressing the **UP/DOWN ▲▼** buttons will alternate between "On" and "Off".

**O**PERATION

# Fine Tuning Channels

Use fine tuning to manually adjust a particular channel for optimal reception.
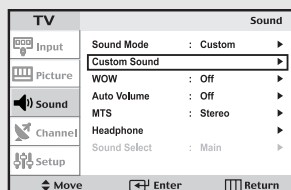
## 1

Select the appropriate channel.

## 2

Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Channel", then press the **ENTER** button.

| TV | | Channel |
|---|---|---|
| 📟 Input | Air/CATV      :   Air | ▶ |
| 📺 Picture | Auto Program | ▶ |
| 🔊 Sound | Add/Delete | ▶ |
| 📡 Channel | Fine Tune | ▶ |
| ⚙️ Setup | | |
| ◆ Move | ↵ Enter | |||| Return |

## 3
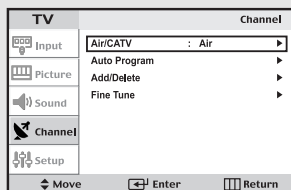
Press the **UP/DOWN ▲▼** buttons to select "Fine Tune", then press the **ENTER** button.

| TV | | Channel |
|---|---|---|
| 📟 Input | Air/CATV      :   Air | ▶ |
| 📺 Picture | Auto Program | ▶ |
| 🔊 Sound | Add/Delete | ▶ |
| 📡 Channel | Fine Tune | ▶ |
| ⚙️ Setup | | |
| ◆ Move | ↵ Enter | |||| Return |

## 4

Press the **RIGHT ▶** and **LEFT ◀** buttons to adjust the fine tuning.

**Fine Tune**

Air    28                     0

Reset        Return

◇ CH Change        ◀▶ Adjust        ↵ Store

◀If you do not store the channel in memory, adjustments to the settings are applied before you change the channel but are not saved.  Therefore they return to the original settings once you move to another channel.  User-adjusted channels are marked with an asterisk " ∗ " on the right-hand side of the channel number in the channel banner.

## 5

To store the fine tuning setting in the TV's memory, press the **ENTER** button.

To reset the fine tuning, press the **UP/DOWN ▲▼** buttons to select "Reset", then press the **ENTER** button.

Press the **MENU** button to exit.

**Fine Tune**

Air    28                     0

Reset        Return

◇ CH Change        ◀▶ Adjust        ↵ Store

**Fine Tune**

This Channel is fine tuned

Air    28                     0

Reset        Return

◇ CH Change        ↵ Enter        |||| Return

OPERATION

# Viewing Picture-in-Picture

**This product has one tuner built-in, which does not allow PIP to function in the same mode. Please see 'PIP Settings' below for details.**

You can use the PIP feature to simultaneously watch two video sources.

Note:  While V-Chip is in operation, the PIP function cannot be used.
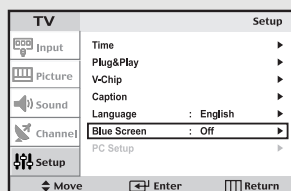
## Activating Picture-in-Picture

### 1

Press the **MENU** button to display the menu.

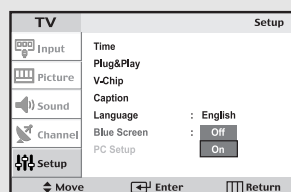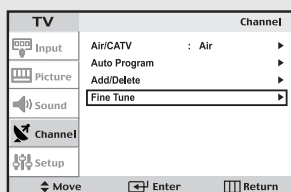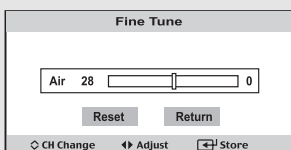Press the **UP/DOWN**▲▼ buttons to select "Picture", then press the **ENTER**⊡ button. Press the **UP/DOWN**▲▼ buttons to select "PIP".

| TV | | Picture |
|---|---|---|
| ▥ Input | Picture Mode | : Dynamic ▶ |
| ▥ Picture | Custom Picture | ▶ |
| ◀)) Sound | Color Tone | : Standard ▶ |
| ✕ Channel | Size | : Wide ▶ |
| ▦ Setup | PIP | ▶ |

◆ Move    ◄⊡ Enter    ▥ Return
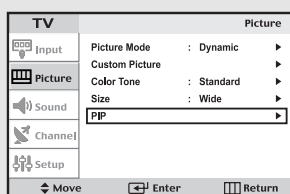
◀ Quick way to access the PIP menu: Simply press the PIP button on the remote control.

### 2

Press the **ENTER**⊡ button to select PIP "Off".

| TV | | PIP |
|---|---|---|
| ▥ Input | PIP | : Off ▶ |
| ▥ Picture | TV/Video | : TV ▶ |
| ◀)) Sound | Swap | ▶ |
| ✕ Channel | Size | : ▭ ▶ |
| ▦ Setup | Position | : ▭ ▶ |
| | Ch.No. | : Air  3 ▶ |

◆ Move    ◄⊡ Enter    ▥ Return
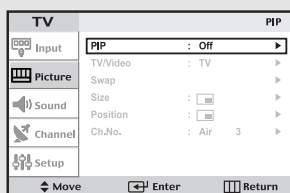
◀ If you turn the TV off while watching and turn it on again, the PIP window will disappear.

### 3

Press the **MENU** button to exit.
Note: Picture-in-Picture does not function when the V-chip is active.

## PIP Settings

O : PIP operates
X : PIP doesn't operate

| Sub Picture / Main Picture | TV | AV | S-Video | Component 1 | Component 2 | PC |
|---|---|---|---|---|---|---|
| TV | X | X | X | O | O | O |
| AV | X | X | X | O | O | O |
| S-Video | X | X | X | O | O | O |
| Component 1 | O | O | O | X | X | X |
| Component 2 | O | O | O | X | X | X |
| PC | O | O | O | X | X | X |

English-29

OPERATION

### Selecting a Signal Source (External A/V) for PIP

Press the **TV/VIDEO(PIP)** button repeatedly to cycle through all of the available signal sources: "TV", "AV", "S-Video", "Component 1", "Component 2" and "PC".

◀If you select "TV", the PIP image is the same as the main image.

＊You can change the PIP Screen according to the Main Source. (See the PIP Settings on page 29.)

### Swapping the Contents of the PIP and Main image

When you press the **SWAP** button, the image in the PIP window will appear on the main screen, and vice versa.

### Changing the PIP Channel

Press the PIP **CH** ∧/∨ button to change the channel that appears in the PIP window.

### Changing the Location of the PIP Window

When you press the **LOCATE** button repeatedly, the PIP window moves from corner to corner on the TV screen.

### Changing the Size of the PIP Window

Press the **SIZE** button to alternate between a smaller and larger PIP window.

• When the PC is in energy saving mode, you cannot choose the PIP option.

• Press the 🔘 button once more to deselect PIP mode.

• You may notice that the picture in the PIP window becomes slightly unnatural when you set the main screen to game or karaoke mode. Switch the main screen and the PIP window for normal viewing.

• You can adjust picture position only by using the ▭ size menu.

English-30

# Changing the Screen Size

## 1
Press the **ASPECT** button to change the screen size.

Wide

Panorama

Normal

Zoom1,2    ♦ Move
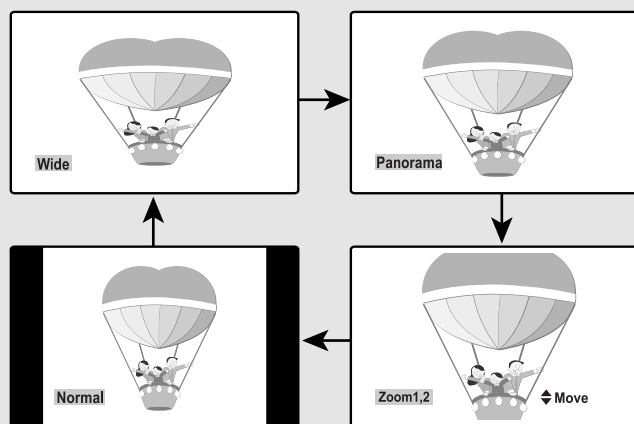
- • Wide: Sets the picture to 16:9 wide mode.
- • Panorama : Use this mode for the wide aspect ratio of a panoramic picture.
- • Zoom 1,2 : Magnifies the size of the picture on screen.
- • Normal: Sets the picture to 4:3 normal mode.
  This is the standard TV screen size.

# Freezing the Picture

## 1
Press the **STILL** button to freeze a moving picture.
• Normal sound will still be heard.
Press again to cancel.

**OPERATION**

# Adjusting the Color Tone

You can change the color of the entire screen according to your preference.

## 1
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Picture", then press the **ENTER** button.

| TV | | Picture |
|---|---|---|
| Input | Picture Mode : Dynamic | ► |
| Picture | Custom Picture | ► |
| Sound | Color Tone : Standard | ► |
| Channel | Size : Wide | ► |
| Setup | PIP | ► |
| ◆ Move | Enter | ▥ Return |
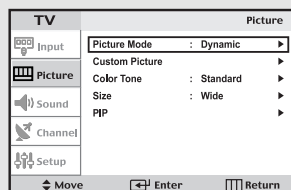
## 2
Press the **UP/DOWN ▲▼** buttons to select "Color Tone", then press the **ENTER** button.

| TV | | Picture |
|---|---|---|
| Input | Picture Mode : Dynamic | ► |
| Picture | Custom Picture | ► |
| Sound | Color Tone : Standard | ► |
| Channel | Size : Wide | ► |
| Setup | PIP | ► |
| ◆ Move | Enter | ▥ Return |

## 3
Press the **UP/DOWN ▲▼** buttons to select Color Tone.

Press the **MENU** button to exit.

| TV | | Picture |
|---|---|---|
| Input | Picture Mode : Dynamic | |
| Picture | Custom Picture | |
| Sound | Color Tone : Cool2 | |
| Channel | Size : Cool1 | |
| Setup | PIP : Standard | |
| | Warm1 | |
| | Warm2 | |
| ◆ Move | Enter | ▥ Return |

◀ You can select "Cool 2", "Cool 1", "Standard", "Warm 1", "Warm 2" color tones according to personal preference.

**OPERATION**

# For automatic volume control

Reduces the differences in volume level among broadcasters.

## 1

Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Sound", then press the **ENTER** button.

| TV | | Sound |
|---|---|---|
| Input | Sound Mode | : Custom ▶ |
| Picture | Custom Sound | ▶ |
| Sound | WOW | : Off ▶ |
| Channel | Auto Volume | : Off ▶ |
| Setup | MTS | : Stereo ▶ |
| | Headphone | ▶ |
| | Sound Select | : Main ▶ |
| ⬍ Move | ⏎ Enter | ☰ Return |

## 2
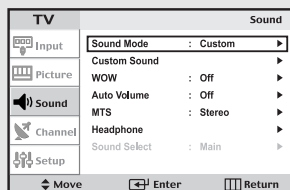
Press the **UP/DOWN ▲▼** buttons to select "Auto Volume", then press the **ENTER** button.

| TV | | Sound |
|---|---|---|
| Input | Sound Mode | : Custom ▶ |
| Picture | Custom Sound | ▶ |
| Sound | WOW | : Off ▶ |
| Channel | Auto Volume | : Off ▶ |
| Setup | MTS | : Stereo ▶ |
| | Headphone | ▶ |
| | Sound Select | : Main ▶ |
| ⬍ Move | ⏎ Enter | ☰ Return |

## 3

Press the **UP/DOWN ▲▼** buttons to set Auto Volume "On".

Press the **MENU** button to exit.

| TV | | Sound |
|---|---|---|
| Input | Sound Mode | : Custom |
| Picture | Custom Sound | |
| Sound | WOW | : Off |
| Channel | Auto Volume | : Off |
| Setup | MTS | : On |
| | Headphone | |
| | Sound Select | : Main |
| ⬍ Move | ⏎ Enter | ☰ Return |

English-**33**

OPERATION

# To select the WOW option

Emphasizes mid- and low-range sounds or gives you a surround-sound experience.

## 1

Press the **MENU** button to display the menu.

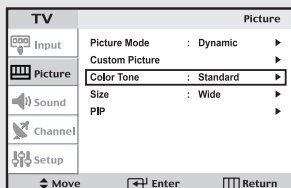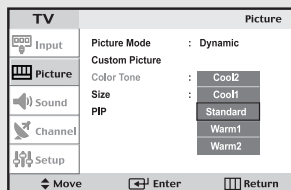Press the **UP/DOWN** ▲▼ buttons to select "Sound", then press the **ENTER** button.

| TV | | Sound |
|---|---|---|
| Input | Sound Mode | : Custom ▶ |
| Picture | Custom Sound | ▶ |
| **Sound** | WOW | : Off ▶ |
| Channel | Auto Volume | : Off ▶ |
| Setup | MTS | : Stereo ▶ |
| | Headphone | ▶ |
| | Sound Select | : Main ▶ |

‡ Move   Enter   Return

## 2
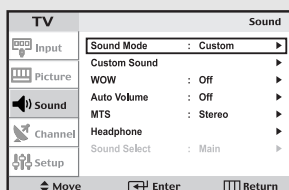
Press the **UP/DOWN** ▲▼ buttons to select "WOW", then press the **ENTER** button.

| TV | | Sound |
|---|---|---|
| Input | Sound Mode | : Custom ▶ |
| Picture | Custom Sound | ▶ |
| **Sound** | WOW | : Off ▶ |
| Channel | Auto Volume | : Off ▶ |
| Setup | MTS | : Stereo ▶ |
| | Headphone | ▶ |
| | Sound Select | : Main ▶ |

‡ Move   Enter   Return

## 3

Press the **UP/DOWN** ▲▼ buttons to set WOW "On".

Press the **MENU** button to exit.

| TV | | Sound |
|---|---|---|
| Input | Sound Mode | : Custom |
| Picture | Custom Sound | |
| **Sound** | WOW | : Off |
| Channel | Auto Volume | : On |
| Setup | MTS | : Stereo |
| | Headphone | |
| | Sound Select | : Main |

‡ Move   Enter   Return

## TRADEMARK & LABEL LICENSE NOTICE

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**WOW** is a  trademark of SRS Labs, Inc.
WOW technology is incorporated under license from SRS labs, Inc.

Or
WOW, SRS and ◉ symbol are trademarks of SRS Labs, Inc.
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English-**34**

# Special Sound Options

### Choosing a Multi-Channel Sound (MTS) Soundtrack

Depending on the particular program being broadcast, you can listen to stereo, mono, or a Separate Audio Program. (SAP audio is usually a foreign-language translation. Sometimes SAP has unrelated information like news or weather.)

**1**
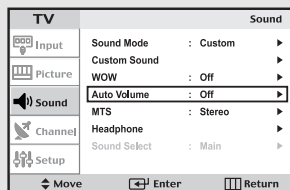Press the **MENU** button to display the menu.

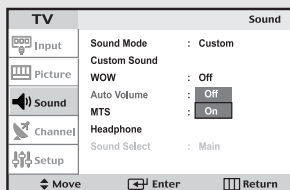Press the **UP/DOWN ▲▼** buttons to select "Sound", then press the **ENTER** button.

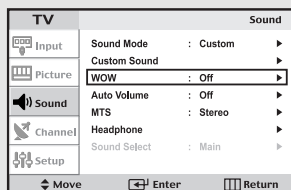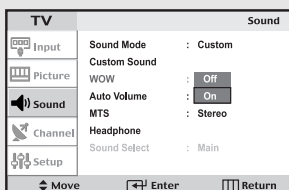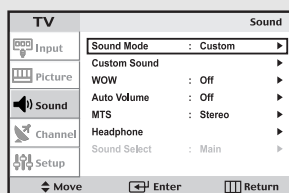| TV | | Sound |
|---|---|---|
| Input | Sound Mode | : Custom ▶ |
| Picture | Custom Sound | ▶ |
| | WOW | : Off ▶ |
| Sound | Auto Volume | : Off ▶ |
| | MTS | : Stereo ▶ |
| Channel | Headphone | ▶ |
| Setup | Sound Select | : Main ▶ |
| ◆ Move | ← Enter | ⫿⫿⫿ Return |

**2**
Press the **UP/DOWN ▲▼** buttons to select "MTS", then press the **ENTER** button.

| TV | | Sound |
|---|---|---|
| Input | Sound Mode | : Custom ▶ |
| Picture | Custom Sound | ▶ |
| | WOW | : Off ▶ |
| Sound | Auto Volume | : Off ▶ |
| | MTS | : Stereo ▶ |
| Channel | Headphone | ▶ |
| Setup | Sound Select | : Main ▶ |
| ◆ Move | ← Enter | ⫿⫿⫿ Return |

**3**
Press the **UP/DOWN ▲▼** buttons to select "Mono", "Stereo" or "SAP", then press the **ENTER** button.

| TV | | Sound |
|---|---|---|
| Input | Sound Mode | : Custom |
| Picture | Custom Sound | |
| | WOW | : Off |
| Sound | Auto Volume | : Off |
| | MTS | : Mono / Stereo / SAP |
| Channel | Headphone | |
| Setup | Sound Select | : Main |
| ◆ Move | ← Enter | ⫿⫿⫿ Return |

◀ Note : The text at the bottom of the menu tells you if the incoming audio is Mono, Stereo or SAP.

- Choose *Stereo* for channels that are broadcasting in stereo.
- Choose *Mono* for channels that are broadcasting in mono, or if you are having difficulty receiving a stereo signal.
- Choose *SAP* to listen to the Separate Audio Program, which is usually a foreign-language translation.

You can also change the MTS setting by pressing the "MTS" button on the remote control. (When you change channels, MTS is set to "Stereo" automatically. To listen in 'SAP' or 'Mono,' change the MTS setting.)

# Selecting the Main or Sub Sound
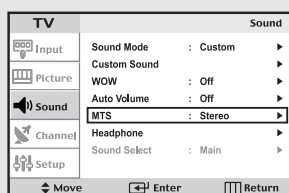
You can select either Main or Sub when PIP is On.

## 1

Press the **MENU** button to display the menu.

Press the **UP/DOWN** ▲▼ buttons to select "Sound", then press the **ENTER** button.

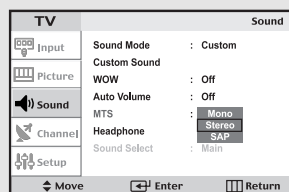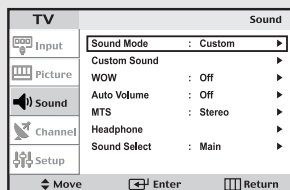| TV | | Sound |
|---|---|---|
| Input | Sound Mode : Custom ▶ | |
| | Custom Sound ▶ | |
| Picture | WOW : Off ▶ | |
| | Auto Volume : Off ▶ | |
| Sound | MTS : Stereo ▶ | |
| | Headphone ▶ | |
| Channel | Sound Select : Main ▶ | |
| Setup | | |
| ◆ Move | Enter | Return |

## 2

Press the **UP/DOWN** ▲▼ buttons to select "Sound Select", then press the **ENTER** button.

| TV | | Sound |
|---|---|---|
| Input | Sound Mode : Custom ▶ | |
| | Custom Sound ▶ | |
| Picture | WOW : Off ▶ | |
| | Auto Volume : Off ▶ | |
| Sound | MTS : Stereo ▶ | |
| | Headphone ▶ | |
| Channel | Sound Select : Main ▶ | |
| Setup | | |
| ◆ Move | Enter | Return |

## 3

Press the **ENTER** button to select "Main" or "Sub".

Select "Main" to hear the main TV sound and select "Sub" to hear the PIP window sound.

Press the **MENU** button to exit.

| TV | | Sound |
|---|---|---|
| Input | Sound Mode : Custom | |
| | Custom Sound | |
| Picture | WOW : Off | |
| | Auto Volume : Off | |
| Sound | MTS : Stereo | |
| | Headphone | |
| Channel | Sound Select Main | |
| Setup | Sub | |
| ◆ Move | Enter | Return |
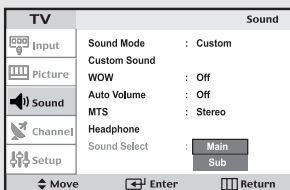
◀Note : Sound Select can also be used to select the Main or Sub sound over the speakers.

English-**36**

OPERATION

# Adjusting the Headphone Sound

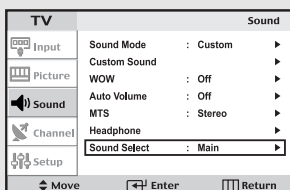The headphone option is especially useful when simultaneously watching the main screen and the PIP window.

## 1

Press the **MENU** button to display the menu.

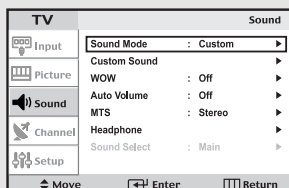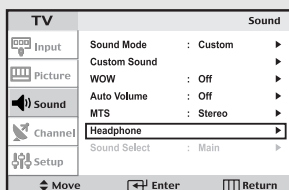Press the **UP/DOWN ▲▼** buttons to select "Sound", then press the **ENTER** button.

| TV | | Sound |
|---|---|---|
| Input | Sound Mode | : Custom ▶ |
| Picture | Custom Sound | ▶ |
| Sound | WOW | : Off ▶ |
| | Auto Volume | : Off ▶ |
| Channel | MTS | : Stereo ▶ |
| Setup | Headphone | ▶ |
| | Sound Select | : Main ▶ |
| | ◆ Move | ↵ Enter    Return |

◀ Note : Headphones must be purchased separately.

## 2

Press the **UP/DOWN ▲▼** buttons to select "Headphone" and press the **ENTER** button.

| TV | | Sound |
|---|---|---|
| Input | Sound Mode | : Custom ▶ |
| | Custom Sound | ▶ |
| Picture | WOW | : Off ▶ |
| Sound | Auto Volume | : Off ▶ |
| | MTS | : Stereo ▶ |
| Channel | Headphone | ▶ |
| Setup | Sound Select | : Main ▶ |
| | ◆ Move | ↵ Enter    Return |

## 3

Press the **UP/DOWN ▲▼** buttons, then press the **ENTER** button to select the particular item to be changed.
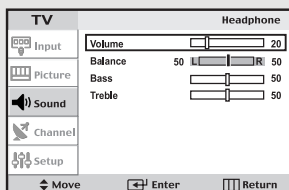
| TV | | Headphone |
|---|---|---|
| Input | Volume | 20 |
| Picture | Balance | 50 L    R 50 |
| Sound | Bass | 50 |
| | Treble | 50 |
| Channel | | |
| Setup | | |
| | ◆ Move | ↵ Enter    Return |

## 4

Press the **LEFT/RIGHT◀▶** buttons to decrease or increase the value of a particular item.

| TV | | Headphone |
|---|---|---|
| Input | Volume | 20 |
| Picture | Balance | 50 L    R 50 |
| Sound | Bass | 50 |
| | Treble | 50 |
| Channel | | |
| Setup | | |
| | ◆ Move | ↵ Enter    Return |

English-**37**
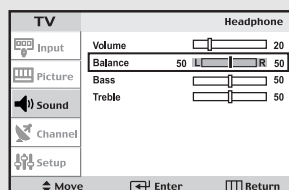
# Setting the Clock

Setting the clock is  necessary in order to use the various timer features of the TV.
Also, you can check the time while watching the TV. (Just press the INFO button.)

## 1

Press the **MENU** button
to display the on-screen
menu.

Press the
**UP/DOWN ▲▼** buttons
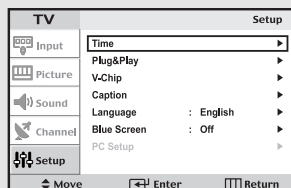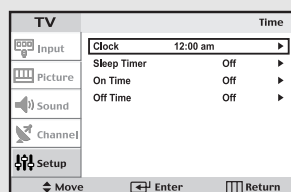to select "Setup", then
press the **ENTER**⏎
button.

| TV | | Setup |
|---|---|---|
| Input | Time | ► |
| Picture | Plug&Play | ► |
| Sound | V-Chip | ► |
| Channel | Caption | ► |
| Setup | Language : English | ► |
| | Blue Screen : Off | ► |
| | PC Setup | ► |
| ◆ Move | ◄┘ Enter | ▥ Return |

## 2

Press the **ENTER**⏎
button to select
"Time" and press the
**ENTER**⏎ button to
select "Clock".

| TV | | Time |
|---|---|---|
| Input | Clock 12:00 am | ► |
| Picture | Sleep Timer Off | ► |
| Sound | On Time Off | ► |
| Channel | Off Time Off | ► |
| Setup | | |
| ◆ Move | ◄┘ Enter | ▥ Return |

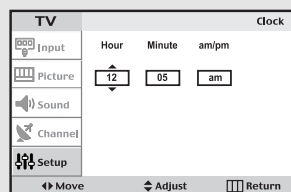## 3

Press the
**UP/DOWN ▲▼** buttons
repeatedly until the
correct hour appears.

Press the
**LEFT/RIGHT ◄►** buttons
to select "Minute".

Press the
**UP/DOWN ▲▼** buttons
until the correct minute
appears.
Press the
**LEFT/RIGHT ◄►** buttons
to select am/pm and
adjust with the
**UP/DOWN ▲▼** buttons.
Press the **MENU** button
to Exit.

| TV | | Clock |
|---|---|---|
| Input | Hour Minute am/pm | |
| Picture | | |
| Sound | 12 05 am | |
| Channel | | |
| Setup | | |
| ◄► Move | ◆ Adjust | ▥ Return |

◄ Note : You can also set the time
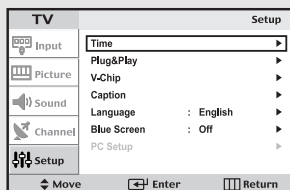using the numeric buttons
on the remote.

English-38

# Setting the On/Off Timer

## 1
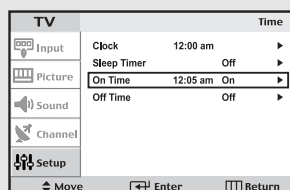
Press the **MENU** button to display the on-screen menu.

Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER⏎** button twice.

| TV | | Setup |
|---|---|---|
| Input | Time | ▶ |
| Picture | Plug&Play | ▶ |
| | V-Chip | ▶ |
| Sound | Caption | ▶ |
| Channel | Language : English | ▶ |
| | Blue Screen : Off | ▶ |
| Setup | PC Setup | ▶ |

‡ Move    ⏎ Enter    ▥ Return

⬥ Before using the timer, you must set the TV's clock.
(See "Setting the Clock" on page 38)

## 2

Press the **UP/DOWN ▲▼** buttons to select "On Time" or "Off Time", then press the **ENTER⏎** button.

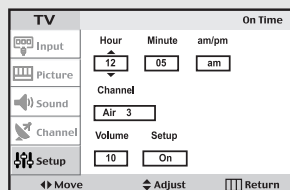| TV | | Time |
|---|---|---|
| Input | Clock 12:00 am | ▶ |
| Picture | Sleep Timer Off | ▶ |
| | On Time 12:05 am On | ▶ |
| Sound | Off Time Off | ▶ |
| Channel | | |
| Setup | | |

‡ Move    ⏎ Enter    ▥ Return

⬥ When you set the hours, make sure the correct time of day (am or pm) appears to the right of the time.

## 3

Press the **UP/DOWN ▲▼** buttons repeatedly to select the appropriate hour.

Press the **LEFT/RIGHT ◀▶** buttons repeatedly to select the appropriate minute (i.e., the time when the TV will turn on).

| TV | | On Time |
|---|---|---|
| Input | Hour Minute am/pm | |
| Picture | 12 05 am | |
| | Channel | |
| Sound | Air 3 | |
| Channel | Volume Setup | |
| Setup | 10 On | |

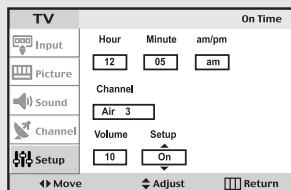⬥ Move    ‡ Adjust    ▥ Return

English-**39**

OPERATION

## 4

Press the
**LEFT/RIGHT ◀▶**
buttons to select Setup.

Press the
**UP/DOWN ▲▼** buttons
to on-timer "On".
(Repeatedly pressing
the **UP/DOWN ▲▼**
buttons will alternate
between On and Off.)

When finished, press the
**ENTER⊞** button.

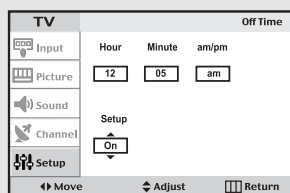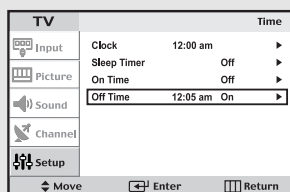| TV | | | On Time |
|---|---|---|---|
| Input | Hour | Minute | am/pm |
| Picture | 12 | 05 | am |
| Sound | Channel | | |
| Channel | Air  3 | | |
| Setup | Volume | Setup | |
| | 10 | On | |
| ◀▶ Move | | ◆ Adjust | ▥ Return |

◀ To deactivate the "On time,"
select "Off" during this step.

## 5

To set the Off time,
press the **UP/DOWN ▲▼**
buttons to select
"Off time".

Press the **ENTER⊞**
button and set the hours
and minutes. (Follow the
same procedure as in
steps 1~4 above.)

| TV | | Time |
|---|---|---|
| Input | Clock | 12:00 am ▶ |
| Picture | Sleep Timer | Off ▶ |
| | On Time | Off ▶ |
| Sound | Off Time | 12:05 am  On ▶ |
| Channel | | |
| Setup | | |
| ◆ Move | ⊞ Enter | ▥ Return |

| TV | | | Off Time |
|---|---|---|---|
| Input | Hour | Minute | am/pm |
| Picture | 12 | 05 | am |
| Sound | | | |
| Channel | Setup | | |
| Setup | On | | |
| ◀▶ Move | | ◆ Adjust | ▥ Return |

## 6

When finished setting the timer, press the **MENU**
button to exit.

- **Auto Power Off**

  When you set the timer on, your television will be turned
  off if you do not operate any controls for 3 hours after
  the TV has been turned on with the 'Timer On' function.
  'Auto power off' operates only when the TV has been
  turned on by the 'Timer on' function.

English-**40**

# Setting the Sleep Timer

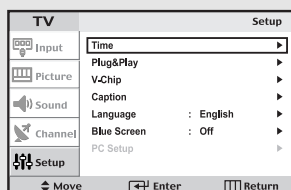Set the timer for the TV to turn off at the preset time automatically.

### Setting the On/Off  Timer Using the Menu

## 1
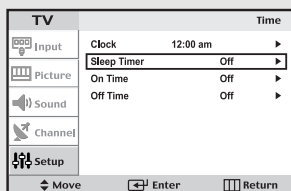
Press the **MENU** button to display the on-screen menu.

Press the **UP/DOWN** ▲▼ buttons to select "Setup", then press the **ENTER** ⊕ button.
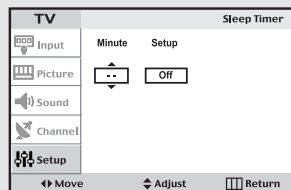
Press the **ENTER** ⊕ button to select "Time".

| TV | | Setup |
|---|---|---|
| Input | Time | ▶ |
| Picture | Plug&Play | ▶ |
| | V-Chip | ▶ |
| Sound | Caption | ▶ |
| Channel | Language : English | ▶ |
| | Blue Screen : Off | ▶ |
| Setup | PC Setup | ▶ |
| ◆ Move | ⊕ Enter | ▥ Return |

## 2

Press the **UP/DOWN** ▲▼ buttons to select "Sleep Timer", then press the **ENTER** ⊕ button.

| TV | | Time |
|---|---|---|
| Input | Clock 12:00 am | ▶ |
| Picture | Sleep Timer Off | ▶ |
| | On Time Off | ▶ |
| Sound | Off Time Off | ▶ |
| Channel | | |
| Setup | | |
| ◆ Move | ⊕ Enter | ▥ Return |

## 3

Press the **UP/DOWN** ▲▼ buttons repeatedly until the correct time appears.

| TV | | Sleep Timer |
|---|---|---|
| Input | Minute Setup | |
| Picture | ▲ | |
| | ⋯ Off | |
| Sound | ▼ | |
| Channel | | |
| Setup | | |
| ◀▶ Move | ◆ Adjust | ▥ Return |

- **Easy Way to Set the Sleep Timer**
  Press the ⬭ᴸᴱᴱᴾ button on the remote.

  The number on the screen changes from
  Off • 30 • 60 • 90 • 120 • 150 • 180 • Off

# Viewing Closed Captions

Your TV decodes and displays the closed captions that are broadcast with certain TV shows. These captions are usually subtitles for the hearing impaired or foreign-language translations. All VCRs record the closed caption signal from television programs, so home-recorded video tapes also provide closed captions. Most pre-recorded commercial video tapes provide closed captions as well. Check for the closed caption symbol in your television schedule and on the tape's packaging: CC .

## 1

Press the **MENU** button to display the on-screen menu.

Press the **UP/DOWN** ▲▼ buttons to select "Setup", then press the **ENTER** button.

| TV | | Setup |
|---|---|---|
| Input | Time | ▶ |
| Picture | Plug&Play | ▶ |
| | V-Chip | ▶ |
| Sound | Caption | ▶ |
| Channel | Language : English | ▶ |
| | Blue Screen : Off | ▶ |
| Setup | PC Setup | ▶ |
| ◆ Move | ◄┘ Enter | ‖‖ Return |

## 2

Press the **UP/DOWN** ▲▼ buttons to select "Caption", then press the **ENTER** button.

| TV | | Setup |
|---|---|---|
| Input | Time | ▶ |
| Picture | Plug&Play | ▶ |
| | V-Chip | ▶ |
| Sound | Caption | ▶ |
| Channel | Language : English | ▶ |
| | Blue Screen : Off | ▶ |
| Setup | PC Setup | ▶ |
| ◆ Move | ◄┘ Enter | ‖‖ Return |

## 3

Press the **ENTER** button to select "Off".

| TV | | Caption |
|---|---|---|
| Input | Caption : Off | ▶ |
| Picture | Mode : Caption | ▶ |
| Sound | Channel : 1 | ▶ |
| Channel | Field : 1 | ▶ |
| Setup | | |
| ◆ Move | ◄┘ Enter | ‖‖ Return |

## 4

Press the **UP/DOWN** ▲▼ buttons to set caption "On/Off", then press the **ENTER** button.

Press the **MENU** button to exit.

| TV | | Caption |
|---|---|---|
| Input | Caption : Off | |
| Picture | Mode : On | |
| Sound | Channel : 1 | |
| Channel | Field : 1 | |
| Setup | | |
| ◆ Move | ◄┘ Enter | ‖‖ Return |
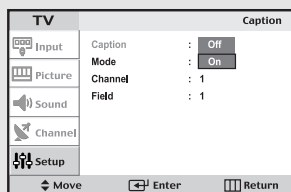
## 5

Depending on the particular broadcast, it might be necessary to make changes to "Channel" and "Filed":
Press the **MENU** button to exit the menu.

◄ Different channels and fields display different information: Field 2 carries additional information that supplements the information in Field 1.
(For example, Channel 1 may have subtitles in English, while Channel 2 has subtitles in Spanish.)

English-**42**

# Using the V-Chip

The V-Chip feature automatically locks out programming that is deemed inappropriate for children. The user must first enter a Pin (personal ID number) before any of the V-Chip restrictions can be set up or changed.

### Setting Up Your Personal ID Number (PIN)

**1**

Press the **MENU** button to display the menu.

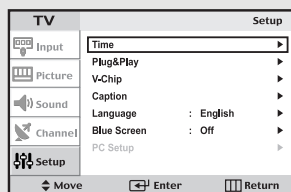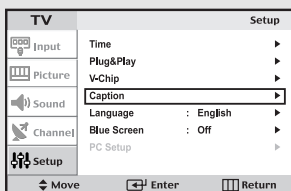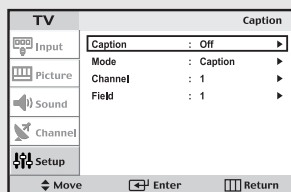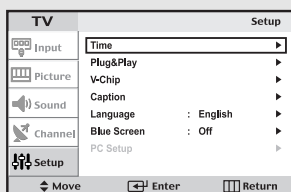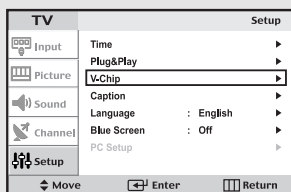Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.
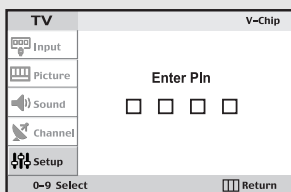
| TV | | Setup |
|---|---|---|
| Input | Time | ▶ |
| Picture | Plug&Play | ▶ |
| Sound | V-Chip | ▶ |
| Channel | Caption | ▶ |
| Setup | Language : English | ▶ |
| | Blue Screen : Off | ▶ |
| | PC Setup | ▶ |
| ‡ Move | ↵ Enter | ⊞ Return |

**2**

Press the **UP/DOWN ▲▼** buttons to select "V-Chip", then press the **ENTER** button.

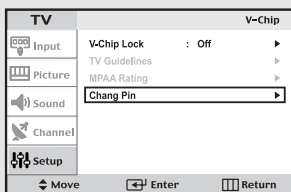| TV | | Setup |
|---|---|---|
| Input | Time | ▶ |
| Picture | Plug&Play | ▶ |
| Sound | V-Chip | ▶ |
| Channel | Caption | ▶ |
| Setup | Language : English | ▶ |
| | Blue Screen : Off | ▶ |
| | PC Setup | ▶ |
| ‡ Move | ↵ Enter | ⊞ Return |

**3**

The "Enter Pin" screen will appear. Enter your 4-digit Pin number. Note: The default Pin number for a new TV set is "**0-0-0-0.**"

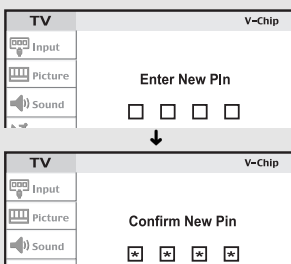| TV | V-Chip |
|---|---|
| Input | |
| Picture | **Enter Pin** |
| Sound | ☐ ☐ ☐ ☐ |
| Channel | |
| Setup | |
| 0~9 Select | ⊞ Return |

**4**

After entering a valid PIN number, the "V-Chip" screen will appear. Press the **UP/DOWN ▲▼** buttons to select "Change Pin."

| TV | V-Chip |
|---|---|
| Input | V-Chip Lock : Off  ▶ |
| Picture | TV Guidelines  ▶ |
| Sound | MPAA Rating  ▶ |
| Channel | Chang Pin  ▶ |
| Setup | |
| ‡ Move | ↵ Enter    ⊞ Return |

**5**

Press the **ENTER** button.
The Change pin screen will appear. Choose any 4-digits for your Pin and enter them.

| TV | V-Chip |
|---|---|
| Input | |
| Picture | **Enter New Pin** |
| Sound | ☐ ☐ ☐ ☐ |

↓

| TV | V-Chip |
|---|---|
| Input | |
| Picture | **Confirm New Pin** |
| Sound | ✱ ✱ ✱ ✱ |

As soon as the 4 digits are entered, the "Confirm new Pin" screen appears. Re-enter the same 4 digits. When the Confirm screen disappears, your Pin has been memorized. Press the **MENU** button to exit.

◄Note: If you forget the Pin, press the remote-control buttons in the following sequence,which resets the pin to 0-0-0-0:
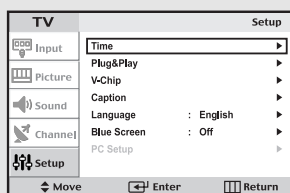POWER OFF ➔ MUTE ➔ 8 ➔ 2 ➔ 4 ➔ POWER ON.

English-43

### How to Enable/Disable the V-Chip
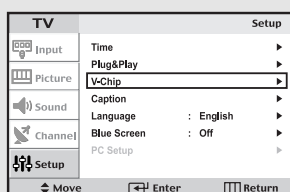
Note: V-Chip cannot be used during PIP operation.

**1**

Press the **MENU** button to display the menu.

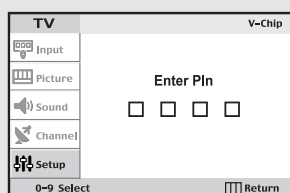Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.

| TV | | Setup |
|---|---|---|
| Input | Time | ▶ |
| Picture | Plug&Play | ▶ |
| | V-Chip | ▶ |
| Sound | Caption | ▶ |
| Channel | Language : English | ▶ |
| | Blue Screen : Off | ▶ |
| Setup | PC Setup | ▶ |
| | ◆ Move ↵ Enter ‖‖ Return |

**2**

Press the **UP/DOWN ▲▼** buttons to select "V-Chip", then press the **ENTER** button.

| TV | | Setup |
|---|---|---|
| Input | Time | ▶ |
| Picture | Plug&Play | ▶ |
| | V-Chip | ▶ |
| Sound | Caption | ▶ |
| Channel | Language : English | ▶ |
| | Blue Screen : Off | ▶ |
| Setup | PC Setup | ▶ |
| | ◆ Move ↵ Enter ‖‖ Return |

**3**

The "Enter Pin" screen will appear. Enter your 4-digit Pin number.

| TV | V-Chip |
|---|---|
| Input | |
| Picture | Enter Pin |
| Sound | ☐ ☐ ☐ ☐ |
| Channel | |
| Setup | |
| 0~9 Select ‖‖ Return |

**4**

The "V-Chip" screen will appear, and "V-Chip Lock" will be select.

To enable the V-Chip feature, press the **ENTER** button so that the "V-Chip Lock" is set to Yes. (Pressing the **UP/DOWN ▲▼** buttons will alternate between On and Off.)

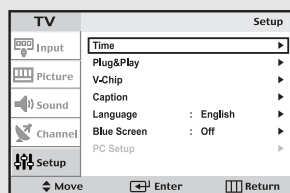| TV | V-Chip |
|---|---|
| Input | V-Chip Lock : Off ▶ |
| Picture | TV Guidelines ▶ |
| | MPAA Rating ▶ |
| Sound | Chang Pin ▶ |
| Channel | |
| Setup | |
| ◆ Move ↵ Enter ‖‖ Return |
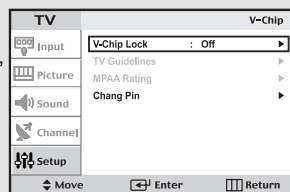
### How to Set up Restrictions Using the 'TV guidelines'

First, set up a personal identification number (PIN), and enable the V-Chip.
(See previous section.) Parental restrictions can be set up using either of two methods:
The TV guidelines or the MPAA rating.

**1**

Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.
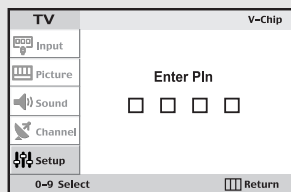
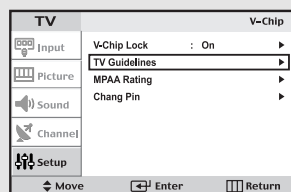| TV | | Setup |
|---|---|---|
| Input | Time | ▶ |
| Picture | Plug&Play | ▶ |
| | V-Chip | ▶ |
| Sound | Caption | ▶ |
| Channel | Language : English | ▶ |
| | Blue Screen : Off | ▶ |
| Setup | PC Setup | ▶ |
| | ◆ Move ↵ Enter ‖‖ Return |

English-**44**

## OPERATION

**2**

Press the
**UP/DOWN▲▼** buttons
to select "V-chip", then
press the **ENTER**
button.

The "Enter pin" screen
will appear. Enter your
4-digit PIN number.

| TV | V-Chip |
| --- | --- |
| Input | |
| Picture | |
| Sound | Enter Pln |
| Channel | ☐ ☐ ☐ ☐ |
| Setup | |
| 0~9 Select | Return |

**3**

Press the
**UP/DOWN▲▼** buttons
to select "TV Guidelines",
then press the **ENTER**
button.

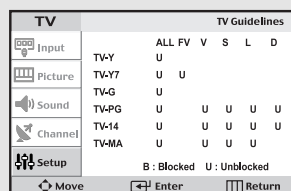| TV | V-Chip |
| --- | --- |
| Input | V-Chip Lock : On ▶ |
| Picture | TV Guidelines ▶ |
| Sound | MPAA Rating ▶ |
| Channel | Chang Pin ▶ |
| Setup | |
| Move | Enter Return |

**4**

The "TV guidelines"
screen will appear.
Press the the **UP/DOWN**
▲▼ buttons to select
one of the six age-based
categories:

TV-Y     Young children
TV-Y7    Children 7 and over
----------------------------------
TV-G     General audience
TV-PG    Parental guidance
TV-14    Viewers 14 and over
TV-MA    Mature audience

| TV | | | | TV Guidelines | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| | | ALL | FV | V | S | L | D |
| Input | TV-Y | U | | | | | |
| | TV-Y7 | U | U | | | | |
| Picture | TV-G | U | | | | | |
| Sound | TV-PG | U | | U | U | U | U |
| | TV-14 | U | | U | U | U | U |
| Channel | TV-MA | U | | U | U | U | |
| Setup | | B : Blocked | | U : Unblocked | | | |
| Move | | Enter | | | Return | | |

◀Note: These categories consist of
two separate groups : TV-Y and
TV-Y7 (young children through
age 7), and TV-G through TV-MA
(everybody else).
The restrictions for these two
groups work independently:
If a household includes very young
children as well as young adults,
the TV guidelines must be set up
separately for each age group.
(See next step.)

**5**

At this point, one of the TV-Ratings is selected.

Press the **ENTER( )**button: Depending on your existing setup, the color of the letter "U" or "B"
will be highlighted. (U= Unblocked, B= Blocked)

When the color of the "U" or "B" is highlighted, press the **ENTER( )**button to block or unblock the category.

A TV-Rating will be highlighted.
To exit this screen, press the **MENU** again. To select a different TV-Rating, press the **UP/DOWN▲▼**
buttons and then repeat the process.

Note 1: The TV-Y7, TV-PG, TV-14 and TV-MA have additional options.
        See the next step to change any of the following sub-ratings:
FV:  **F**antasy **V**iolence
D:   Sexual suggestive **D**ialog
L:   Adult **L**anguage
S:   **S**exual situation
V:   **V**iolence
Note 2: The V-Chip will automatically block certain categories that are "more restrictive." For example,
        if you block "TV-Y" category, then TV-Y7 will automatically be blocked. Similarly, if you block
        the TV-G category, then all the categories in the "young adult" group will be blocked
        (TV-G, TV-PG, TV-14 and TV-MA). The sub-ratings (D, L, S, V) work together similarly.
        (See next section.)

OPERATION

## 6
How to set the FV, D, L, S and V sub-ratings.

First, highlight one of these TV-Ratings: TV-Y7, TV-PG, TV-14 or TV-MA
(See Step 4, on previous page).
Next, while the TV-Rating is selected, repeatedly press the **ENTER(⏎)**button.
This will cycle through the available sub-ratings (FV,L, S, D or V).

A highlighted letter ("U" or "B") will be displayed for each sub-rating. While the "U" or "B" is
highlighted, press the **ENTER(⏎)**buttons to change the sub-rating.

Press **MENU** once to save the TV guidelines. A TV-Rating will be selected, and no letters
"U" or "B" will be changed to yellow.
To exit this screen, press the **MENU** button again. To select a different TV-Rating, press the
**UP/DOWN▲▼** buttons and then repeat the process.

Note: The V-chip will automatically block certain categories that are "More restrictive".
      For example, if you block "L" sub-rating in TV-PG, then the "L" sub-ratings in TV-14 and
      TV-MA will automatically be blocked.

## 7
Press the **MENU** button three times to clear all the screens.
(Or proceed to the next section, and set up additional restrictions based on the MPAA codes).

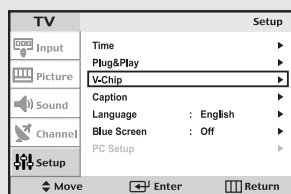### How to Set up Restrictions using the MPAA Ratings: G, PG, PG-13, R, NC-17, X

The MPAA rating system uses the Motion Picture Association of America (MPAA) system,
and its main application is for movies. (Eventually, movie videocassettes will be encoded
with MPAA ratings.) When the V-Chip lock is on, the TV will automatically block any
programs that are coded with objectionable ratings (either MPAA or TV-Ratings).
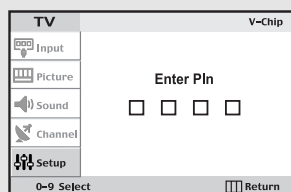
## 1
Press the **MENU** button
to display the menu.

Press the
**UP/DOWN▲▼** buttons
to select "Setup", then
press the **ENTER**⏎
button.

Press the
**UP/DOWN▲▼** buttons
to select "V-Chip", then
press the **ENTER**⏎
button.

| TV | | Setup |
|---|---|---|
| Input | Time | ▶ |
| | Plug&Play | ▶ |
| Picture | V-Chip | ▶ |
| | Caption | ▶ |
| Sound | Language : English | ▶ |
| Channel | Blue Screen : Off | ▶ |
| Setup | PC Setup | ▶ |

‹›Move  ⏎Enter  ▯▯▯Return

## 2
The "Enter pin" screen
will appear. Enter your
4-digit Pin number.

| TV | V-Chip |
|---|---|
| Input | |
| Picture | Enter Pin |
| Sound | ☐ ☐ ☐ ☐ |
| Channel | |
| Setup | |

0~9 Select  ▯▯▯Return

English-46

## OPERATION

# 3

Press the
**UP/DOWN** ▲▼ buttons
to select "MPAA Rating",
then press the
**ENTER** button.

| TV | | V-Chip |
|---|---|---|
| Input | V-Chip Lock | : On ▶ |
| | TV Guidelines | ▶ |
| Picture | MPAA Rating | ▶ |
| | Chang Pin | ▶ |
| Sound | | |
| Channel | | |
| Setup | | |
| ◆ Move | Enter | Return |
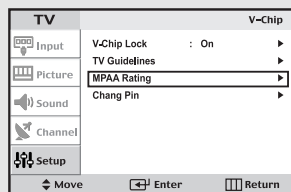
# 4

Repeatedly press the
**UP/DOWN** ▲▼ buttons
to select a particular
MPAA category. (When
a category is selected,
its color changes to
yellow.) Pressing the
**UP/DOWN** ▲▼ buttons
will cycle through the
MPAA categories:

| TV | | | MPAA Rating |
|---|---|---|---|
| Input | G | ▶ | U |
| | PG | ▶ | U |
| Picture | PG-13 | ▶ | U |
| | R | ▶ | U |
| Sound | NC-17 | ▶ | U |
| | X | ▶ | U |
| Channel | NR | ▶ | U |
| Setup | | B : Blocked | U : Unblocked |
| ◆ Move | Enter | | Return |

| | |
|---|---|
| **G** | General audience (no restrictions). |
| **PG** | Parental guidance suggested. |
| **PG-13** | PG-13 (Parents strongly cautioned). |
| **R** | R (Restricted. Children under 17 should be accompanied by an adult). |
| **NC-17** | No children under age 17. |
| **X** | X (Adults only). |
| **NR** | Not rated. |

Press the **UP/DOWN** ▲▼ buttons to select a category.

Press the **ENTER( )** buttons to select "U" or "B".

Press the **MENU** button three times to save the settings and to clear all screens.

Note: The V-Chip will automatically block any category that is "more restrictive".
For example, if you block the "PG-13" category, then "R," "NC-17," and "X"will
automatically be blocked also.

## How to Reset the TV after the V-Chip Blocks a Channel ('Emergency Escape')

If the TV is tuned to a restricted channel, the V-Chip will block it. The screen will go blank and the following message will appear: "Excessive rating".

To resume normal viewing, tune to a different channel using the number buttons. Under certain conditions (depending on the rating of the local TV programs) the V-Chip might lock out all the channels.
In this case, use the Menu button for an "emergency escape":

Select the V-Chip on the Menu. Enter your PIN number, and press the **ENTER( )** button to temporarily disable the V-Chip Lock.

# Chapter Five

## PC DISPLAY

# Using Your TV as a Computer (PC) Display

### How to Set up Your PC Software (Windows only)

The Windows display-settings for a typical computer are shown below. However, the actual screens on your PC will probably look different, depending upon your particular version of Windows and your particular video card. Even if your actual screens look different, the same, basic set-up information will apply in most cases.
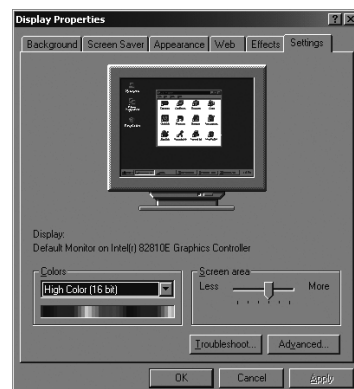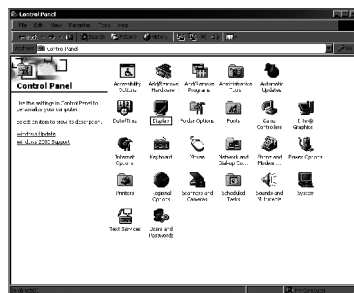(If not, contact your computer manufacturer or Samsung Dealer.)
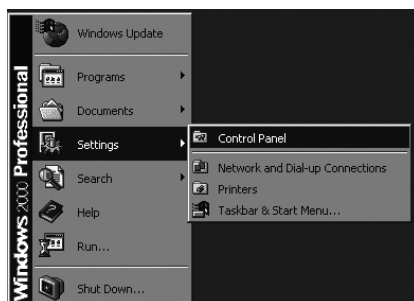
First, click on "Settings" on the Windows start menu.

While "Settings" is highlighted, move the cursor so that "Control Panel" is highlighted.

When the control panel screen appears, click on "Display" and a display dialog-box will appear.

Navigate to the "settings" tab on the display dialog-box.

The two key variables that apply the TV-PC interface are "resolution" and "colors." The correct settings for these two variables are:

* Size (sometimes called "resolution"): 1280 x 768 pixels

If a vertical-frequency option exists on your display settings dialog box, the correct value is "60" or "60 Hz". Otherwise, just click "OK" and exit the dialog box.

* See "Display Modes" on page 59.
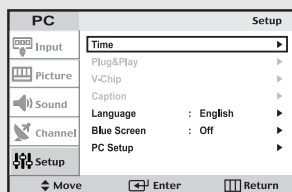
# PC DISPLAY

## Adjusting the Screen Quality

The purpose of the picture quality adjustment is to remove or reduce picture noise. If the noise is not removed by fine tuning alone, then do the frequency adjustments to the utmost and fine tune again. After the noise has been reduced, re-adjust the picture so that it is aligned on the center of screen.

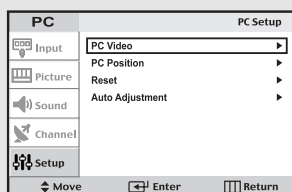Press the PC button on the remote control to select the PC mode.

### 1
Press the **MENU** button to display the menu.

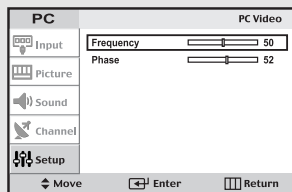Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.

```
PC                                    Setup
  Input      Time                          ▶
             Plug&Play                     ▶
  Picture    V-Chip                        ▶
  Sound      Caption                       ▶
             Language        :  English    ▶
  Channel    Blue Screen     :  Off        ▶
             PC Setup                      ▶
  Setup
        Move          Enter          Return
```

### 2
Press the **UP/DOWN ▲▼** buttons to select "PC Setup", then press the **ENTER** button.

```
PC                                    PC Setup
  Input      PC Video                      ▶
             PC Position                   ▶
  Picture    Reset                         ▶
             Auto Adjustment               ▶
  Sound
  Channel
  Setup
        Move          Enter          Return
```
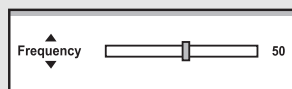
### 3
Press the **ENTER** button to select "PC Video". Press the **UP/DOWN ▲▼** buttons to select "Frequency" or "Phase".

```
PC                                    PC Video
  Input      Frequency    ▭▬▭   50
             Phase        ▭▬▭   52
  Picture
  Sound
  Channel
  Setup
        Move          Enter          Return
```

### 4
Press the **LEFT/RIGHT ◀▶** buttons to adjust the screen quality, vertical stripes appear or the picture may be blurry.

```
        ▲
Frequency  ▭▭▭▮▭▭▭  50
        ▼
```
**<Adjusting Frequency>**

```
        ▲
Phase   ▭▭▭▮▭▭▭  52
        ▼
```
**<Adjusting Phase>**

### 5
When you are satisfied with the settings, press the **MENU** button repeatedly to return to normal viewing.
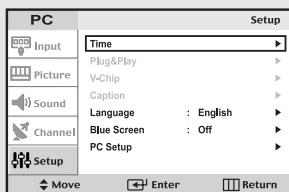
English-**49**

# PC DISPLAY

## Changing the Screen Position

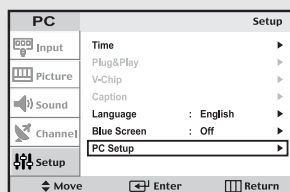Press the PC button on the remote control to select the PC mode.

**1**

Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.

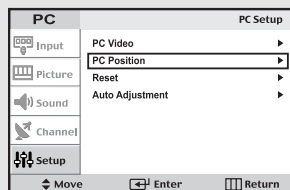| PC | | Setup |
|---|---|---|
| Input | Time | ▶ |
| Picture | Plug&Play | ▶ |
| | V-Chip | ▶ |
| Sound | Caption | ▶ |
| Channel | Language : English | ▶ |
| | Blue Screen : Off | ▶ |
| Setup | PC Setup | ▶ |
| ⬍ Move | ↵ Enter | ⫴ Return |

**2**

Press the **UP/DOWN ▲▼** buttons to select "PC Setup", then press the **ENTER** button.

| PC | | Setup |
|---|---|---|
| Input | Time | ▶ |
| Picture | Plug&Play | ▶ |
| | V-Chip | ▶ |
| Sound | Caption | ▶ |
| Channel | Language : English | ▶ |
| | Blue Screen : Off | ▶ |
| Setup | PC Setup | ▶ |
| ⬍ Move | ↵ Enter | ⫴ Return |

**3**

Press the **UP/DOWN ▲▼** buttons to select "PC Position", then press the **ENTER** button.

| PC | | PC Setup |
|---|---|---|
| Input | PC Video | ▶ |
| Picture | PC Position | ▶ |
| | Reset | ▶ |
| Sound | Auto Adjustment | ▶ |
| Channel | | |
| Setup | | |
| ⬍ Move | ↵ Enter | ⫴ Return |

**4**

Press the **UP/DOWN ▲▼** buttons to adjusting the V-Position.
Press the **LEFT/RIGHT ◀▶** buttons to adjusting the H-Position.

Press the **MENU** button to exit.

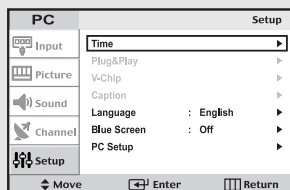| PC | PC Position |
|---|---|
| Input | |
| Picture | |
| Sound | |
| Channel | |
| Setup | |
| ⬍ V-Position | ◀▶ H-Position  ⫴ Return |

English-**50**
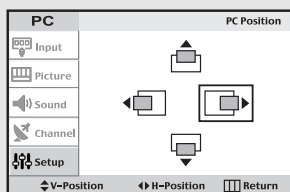
# PC DISPLAY

## How to Auto Adjust

Use the Auto Adjust function to have the TV set automatically adjust the video signals the monitor receives.   The function also automatically fine-tunes the settings and adjusts the frequency values and positions.
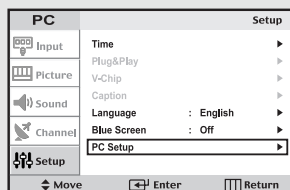
**1**

Press the **MENU** button to display the menu.

Press the **DOWN** ▼ button to select "Setup", then press the **ENTER** button.

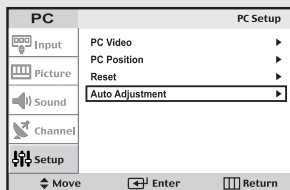| PC | | Setup |
|---|---|---|
| Input | Time | ▶ |
| | Plug&Play | ▶ |
| | V-Chip | ▶ |
| Picture | Caption | |
| Sound | Language | : English | ▶ |
| Channel | Blue Screen | : Off | ▶ |
| Setup | PC Setup | ▶ |

‡ Move        Enter        Return

**2**

Press the **UP/DOWN** ▲▼ buttons to select "PC  Setup", then press the **ENTER** button.

| PC | | Setup |
|---|---|---|
| Input | Time | ▶ |
| | Plug&Play | ▶ |
| Picture | V-Chip | ▶ |
| Sound | Caption | |
| Channel | Language | : English | ▶ |
| | Blue Screen | : Off | ▶ |
| Setup | PC Setup | ▶ |

‡ Move        Enter        Return

**3**

Press the **UP/DOWN** ▲▼ buttons to select "Auto Adjustment", then press the **ENTER** button.

| PC | | PC Setup |
|---|---|---|
| Input | PC Video | ▶ |
| | PC Position | ▶ |
| Picture | Reset | ▶ |
| Sound | Auto Adjustment | ▶ |
| Channel | | |
| Setup | | |

‡ Move        Enter        Return

**4**

Press the **MENU** button to exit.

Auto  Adjustment

English-**51**

# Chapter Six

**T**ROUBLESHOOTING

If the TV seems to have a problem, first try this list of possible problems and solutions. If none of these troubleshooting tips apply, call your nearest Samsung service center.

## Identifying Problems

| Problem | Possible Solution |
|---|---|
| Poor picture | Try another channel.<br>Adjust the antenna.<br>Check all wire connections. |
| Poor sound quality. | Try another channel.<br>Adjust the antenna. |
| No picture or sound. | Try another channel.<br>Press the TV/VIDEO button.<br>Make sure the TV is plugged in.<br>Check the antenna connections. |
| No sound or sound is too low at maximum  volume. | First, check the volume of units connected to your TV (digital broadcasting receiver, DTV, DVD, cable broadcasting receiver, VCR, etc.). Then, adjust the TV volume accordingly. |
| Picture rolls vertically. | Check all wire connections. |
| The TV operates erratically. | Unplug the TV for 30 seconds, then try operating it again. |
| The TV won't turn on. | Make sure the wall outlet is working. |
| Remote control malfunctions | Replace the remote control batteries.<br>Clean the upper edge of the remote control (transmission window).<br>Check the battery terminals. |
| "Check Signal Cable" message. | Ensure that the signal cable is firmly connected to the PC sources. |

English-**52**

**T**ROUBLESHOOTING

| Problem | Possible Solution |
|---|---|
| "Not Supported Mode!" message. | Check the maximum resolution and the frequency of the video Adapter. Compare these values with the data in the Display Modes Timing Chart. |
| The image is too light or too dark. | Adjust the Brightness and Contrast. Adjust the Fine function. |
| Horizontal bars appear to flicker, jitter or shimmer on the image. | Adjust the Coarse function and then adjust the Fine function. |
| Vertical bars appear to flicker, jitter or shimmer on the image. | Adjust the Coarse function and then adjust the Fine function. |
| Screen is black and power indicator light blinks steadily. | On your computer check: Power , Signal Cable(15-pin D-Sub) The TV is using its power management system. Move the computer's mouse or press a key on the keyboard. |
| Image is not stable and may appear to vibrate. | If the setting is not correct, use your computer utility program to change the display settings. NOTE: Your TV supports multiscan display functions within the following frequency domain: • Horizontal frequency:　　30 kHz ~ 68 kHz • Vertical frequency:　　56 Hz ~ 85 Hz • Maximum refresh rate:　　1280 x 768 @ 60 Hz |
| Image is not centered on the screen. | Adjust the horizontal and vertical position. |
| If a still image is displayed for an extended period of time, residual images or blurring may appear. | When you need to leave the monitor unused for an extended period of time, adjust the settings so that the monitor automatically goes into energy saving mode or activates the screen saver to display moving images. |

**A**PPENDIX

# How to assemble the TV set and stand base

☛ Colors may vary depending on the model you purchase.
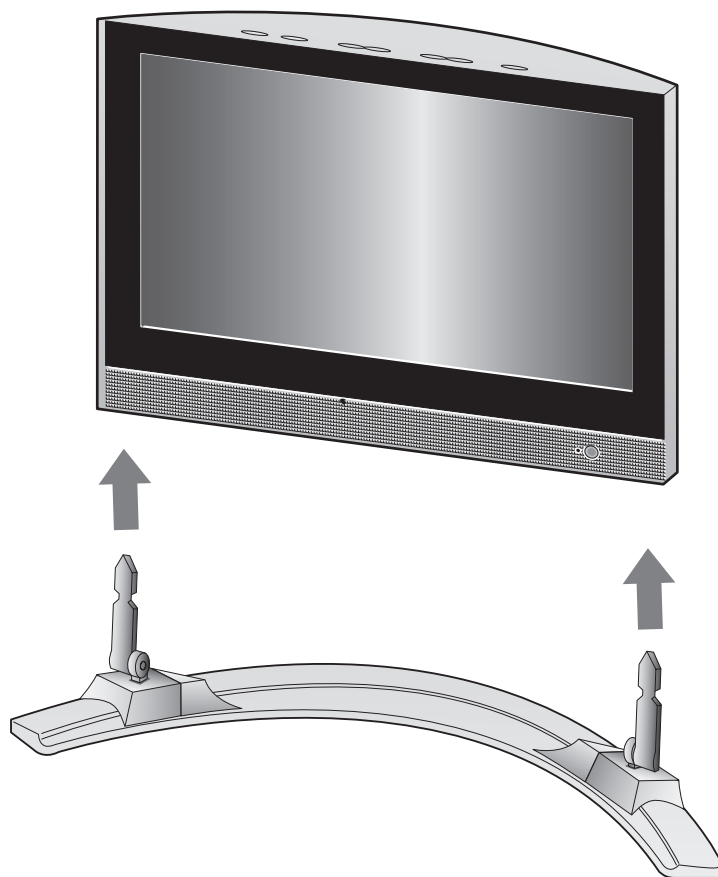


**NOTE : The curved side of the stand base should be placed
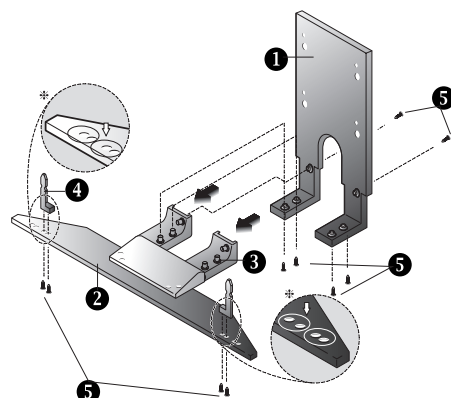at the back of the TV set as shown in the above figure.**

English-54

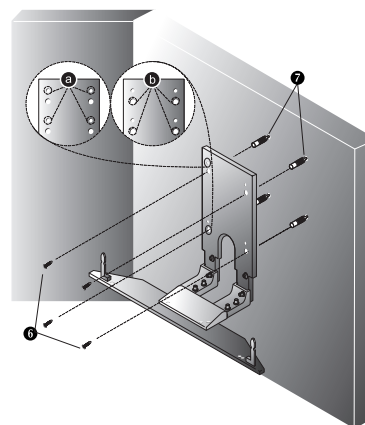**A**PPENDIX

# Installing the Wall Mount Kit (sold separately)

This installation is to be used when attaching the wall mount to a concrete wall.
When attaching to other building materials, please contact your nearest dealer.
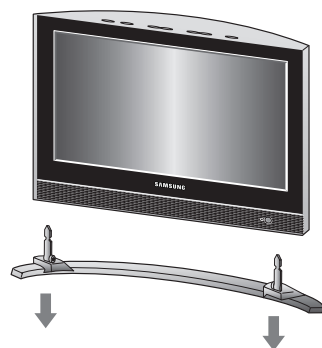
**1** Connect the hinge to the wall mount bracket.
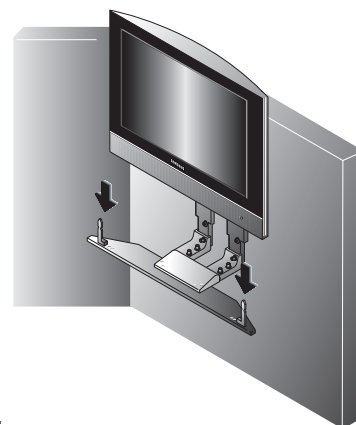
**2** Secure the bracket to the wall.

**Use (a) holes to attach the VESA mount.**
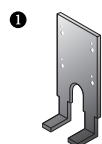**Use (b) holes to attach the wall mount.**

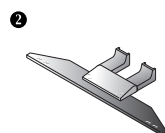**3** Remove the base from the TV set.
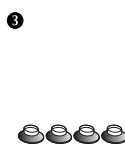
**4** Mount the TV on the wall mount bracket.

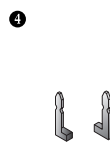☛ Colors may vary depending on the model you purchase.
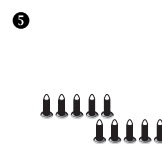
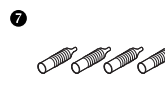❶ Holder-Wall : 1EA

❷ Holder-Ass'y : 1EA

❸ Rubber : 4EA

❹ Holder-LCD L/R : 2EA

❺ Screw FH 4 x 8 : 10EA

❻ Screw BH 4 x 25 : 4EA

❼ Anchor : 4EA

#The wall mount bracket is sold separately.

English-55

**A**PPENDIX

# Using the Anti-Theft Kensington Lock



Cable

Figure 2

Figure 1

<Optional>
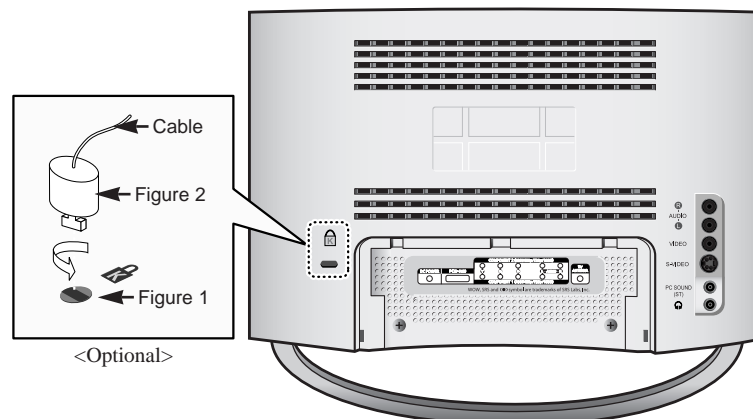
The Kensington lock is a device used to physically fix the system when using it in a public place. The locking device has to be purchased separately. The appearance and locking method may differ from the illustration depending on the manufacturer. Please refer to the manual provided with the Kensington lock for proper use.

## 1
Insert the locking device into the Kensington slot on the LCD TV(Figure 1), and turn it in the locking direction(Figure 2).

## 2
Connect the Kensington lock cable.

## 3
Fix the Kensington lock to a desk or a heavy stationary object.

## Retractable Stand

Note: The maximum tilt angle is 10 degrees in the backward direction.
       Please do not tilt the TV outside the specified range. Using excessive force
       to tilt the TV may cause permanent damage to the mechanical part of the stand.

☛ Colors may vary depending on the model you purchase.

0~10°



English-56
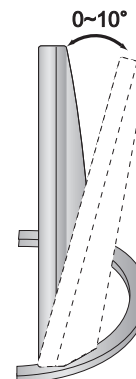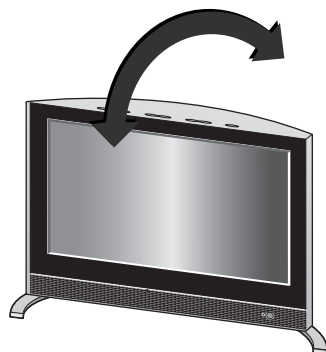
**A**PPENDIX

# Cleaning and Maintaining Your TV

With proper care, your TV unit will give you many years of service. Please follow these guidelines to get the maximum performance from your TV.

### Placement

- Do not place the TV near extremely hot, cold, humid or dusty places.
- Do not place the TV near appliances with electric motors that create magnetic fields, such as vacuum cleaners.
- Keep the ventilation openings clear; do not place the TV on a soft surface, such as cloth or paper.
- Place the TV in a vertical position only.

### Liquids

- Do not handle liquids near or on the TV.
  Liquids that spill into it can cause serious damage.

### Cabinet

- Never open the cabinet or touch the parts inside.
- Wipe your TV with a clean, dry cloth. Never use water, cleaning fluids, wax, or chemicals.
- Do not put heavy objects on top of the cabinet.

### Temperature

- If your TV is suddenly moved from a cold to a warm place, unplug the power cord, and allow at least two hours for moisture that may have formed inside the unit to dry completely.

# Using Your TV in Another Country

If you plan to take your TV with you to a foreign country, please be aware of the different television systems that are in use around the world. A TV designed for one system may not work properly with another system due to differences in the TV channel frequencies.

**A**PPENDIX

# Specifications

| Model Name | | LTN1785W / LT-P1795W |
|---|---|---|
| Panel | Size<br>Display Size<br>Type<br>Pixel Pitch<br>Viewing Angle | 17.0 inch Diagonal<br>14.58(H) X 8.75(V) inch<br>a-si TFT active matrix<br>0.01139(H) X 0.01139(V) inch<br>170/170 (H/V) |
| *Frequency | Horizontal<br>Vertical<br>Display Color | 30 ~ 68 kHz<br>56 ~ 85 Hz<br>16,777,216 colors |
| Display Resolution | Maximum Mode | 1280 X 768 @ 60 Hz |
| Input Signal | Sync.<br>Video signal | H/V Separate, TTL, P. or N.<br>0.7 Vp-p @ 75 ohm |
| Video | Color system<br>Video system | NTSC<br>CVBS, S-VHS, RGB |
| Component | Video In<br>Audio In | 1.0 Vp-p @ 75 ohm<br>500mVrms |
| Power Supply | Input<br>Output | AC 100 ~ 240 V (50/60Hz),<br>DC 14V / 4.5A |
| Power Consumption | Maximum<br>Power Saving | 70 W<br>< 3 W |
| Dimensions / Weight | Unit (WxDxH):<br>body<br><br>With stand | 18.26 x 3.45 x 13.60 inch  / 9.7 lbs<br>(463.8 x 87.7 x 345.0 mm / 4.4 kg)<br>18.26 x 7.05 x 14.32 inch  / 10.4 lbs<br>(463.8 x 179.0 x 363.7 mm / 4.72 kg) |
| Environmental Considerations | Operating Temperature<br>Operating Humidity<br>Storage Temperature<br>Storage Humidity | 50 °F to 104 °F (10 °C to 40 °C)<br><br>10% to 80%<br><br>-13 °F to 113 °F (-25 °C to 45 °C)<br><br>5% to 95% |
| Audio Characteristics | Audio Input 1<br>Audio Input 2<br>Headphone out<br>Frequency Response | RCA Jack Red(R) White(L), 0.5Vrms (-9dB)<br>3.5ø Stereo Jack, 0.5Vrms (-9dB)<br>Max. 10mW Output (3.5ø Stereo Jack 32)<br><br>RF: 80Hz ~ 15KHz (at- 3dB)<br>A/V: 80Hz ~ 20KHz (at - 3dB) |

* Referring to Display Modes, page 59.

English-**58**

**A**PPENDIX

# Display Modes

If the signal from the system equals the standard signal mode, the screen is adjusted automatically. If the signal from the system doesn't equal the standard signal mode, adjust the mode by referring to your Videocard user guide; otherwise there may be no video. For the display modes listed below, the screen image has been optimized during manufacture.

| Mode | Resolution | Horizontal Frequency (kHz) | Vertical Frequency (Hz) | Pixel Clock Frequency (MHz) | Sync Polarity (H/V) |
|---|---|---|---|---|---|
| Macintosh | 640 X 480 | 35.000 | 66.667 | 30.240 | - / - |
| | 832 X 624 | 49.726 | 74.551 | 49.500 | + / + |
| IBM | 640 X 480 | 31.496 | 59.940 | 25.175 | - / - |
| | 720 X 400 | 31.469 | 70.087 | 28.322 | - / - |
| VESA | 640 X 480 | 37.861 | 72.809 | 31.500 | - / - |
| | 640 X 480 | 37.500 | 75.000 | 31.500 | - / - |
| | 640 X 480 | 43.269 | 85.008 | 36.000 | - / - |
| | 800 X 600 | 35.156 | 56.250 | 36.000 | + / - |
| | 800 X 600 | 37.879 | 60.317 | 40.000 | + / + |
| | 800 X 600 | 48.077 | 72.188 | 50.000 | + / + |
| | 800 X 600 | 46.875 | 75.000 | 49.500 | + / + |
| | 800 X 600 | 53.674 | 85.061 | 56.250 | - / - |
| | 1024 X 768 | 48.363 | 60.004 | 65.000 | - / - |
| | 1024 X 768 | 56.476 | 70.069 | 75.000 | - / - |
| | 1024 X 768 | 60.023 | 75.029 | 78.750 | + / + |
| | 1024 X 768 | 68.677 | 84.997 | 94.500 | + / + |
| GTF | 1280 X 768 | 47.700 | 60.000 | 80.136 | - / + |